RESOLUTION NO. CR-16-20

A RESOLUTION TO APPROVE THE DEVELOPMENT PLAN FOR FARMSTEAD SUB AREA H LOCATED AT 62 JACKSON PIKE

WHEREAS, on May 05, 2020, the Planning Commission recommended approval of the Development Plan for Farmstead, Sub Area "H" with the following stipulations:

- 1. Further detail shall be submitted to the Development Department for the homes located at the terminus of the proposed cul-de-sacs, showing additional architectural detail and appropriate landscaping to ensure a quality streetscape. These lots are identified on the Plan Sheets as 8, 9, 26, 27, 41, 42, 56 and 57;
- 2. The location of the protective fence along Jackson Pike shall be amended on plans to be adjacent to the retention pond;
- 3. Applicant shall correct the typographic error for the Note on the reinforced fencing to state that the detail is referenced on Sheet 701, instead of 702.

NOW, THEREFORE BE IT RESOLVED BY THE COUNCIL OF THE CITY OF GROVE CITY, STATE OF OHIO, THAT:

SECTION 1. This Council hereby approves the Development Plan for Farmstead Sub Area "H" located at 62 Jackson Pike, contingent upon the stipulations set by Planning Commission.

SECTION 2. This approval shall be good for 12 months from the date passed, or as otherwise provided in Section 1101.07(b) of the Codified Ordinances of the City of Grove City, Ohio.

SECTION 3. This resolution shall take effect at the earliest opportunity allowed by law.

oul, President of Council

Richard L. Stage, Mave

Richard L. Stage, Mayor

05-18-2020 Passed: Effective: 05-18-2020

Attest:

I Certify that this resolution is correct as to form.

Council Tami K. Kelly, MMC

Stephen J. Smith, Director of Law



ITEM 5: 202003040010 – Farmstead Subarea H (Development Plan)

Site Location

West of Jackson Pike, approximately 2,150 feet north of the intersection with London-Groveport Road (Parcels: 040-016097 & 040-016100).

Proposal

Development Plan for Subarea H of the Farmstead Development and contains 87 single-family lots on approximately 21.52 acres, with a development text.

Current Zoning

PUD-R

Future Land Use

Conservation Neighborhood

Property Owners

Grand Communities, LLC (040-016097) John Hancock Trustee (040-016100)

Applicant/Representative

Michael Kady, Grand Communities, LLC

Applicable Plans, Policies, and Code Section(s)

- Zoning Code Section 1135.14
- FARMSTEAD ZONING TEXT (C-68-18)
- GroveCity2050 Community Plan

Staff Recommendation

Approval with three stipulations.

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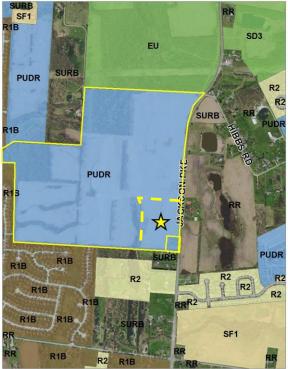
Case Manager

Jimmy Hoppel, Development Planner 614-277-3021 jhoppel@grovecityohio.gov

Summary

The applicant is requesting approval of a Development Plan for Subarea H of the Farmstead Development. The proposal includes 87 lots for single-family homes and open space, on approximately 21.52 acres. The proposal also includes a development text.

Zoning Map



Next Steps

Upon recommendation from Planning Commission, the Development Plan can move forward to City Council.

1. Context Map

West of Jackson Pike, approximately 2,150 feet north of the intersection with London-Groveport Road (Parcels: 040-016097 & 040-016100).





202003040010 Farmstead Subarea H - Development Plan PID: 040-016017 & 040-016100

1,000 Feet 250 500 0

2. Analysis

Summary

The applicant is requesting approval of a Development Plan for a residential neighborhood, which is a subarea of the larger Farmstead development that was previously approved by City Council. The proposed residential community is comprised of single-family housing with two-car garages and a modern farmhouse themed design. The proposal also includes landscaping, street lighting, a wet basin and a multiuse path that is consistent with the design and character of the overall Farmstead development.

TheGroveCity2050 Community Plan Future Land Use and Character Map recommends this site be used as a "Conservation Neighborhood", which the proposed site meets. The site includes preserved reserve space, includes walking trails and is only proposing 87 lots, when up to 120 had previously been approved for the area in the zoning text. Staff believes that the proposed layout is in character with the area, allowing for a transition between the single-family developments to the west and more rural character to the east, with the addition of the large amount of preserved area throughout the development.

Additionally, the proposed layout and usage of the site meets the Farmstead Zoning Text, and/or the Development Text associated with this application. Overall, the layout, character and design of this subarea is consistent with the larger Farmstead development.

Site Plan

The proposed site is 21.52 acres and will include 87 single-family lots. The site will be accessed from Hawthorne Parkway on the north side of the subarea by Honey Farm Way. Honey Farm Way will have four cul-de-sac roadways branching off which will configure the roadway network within the subarea. Honey Farm Way is proposed to be 28 feet wide, with 60 feet of right-of-way, while the cul-de-sac roadways will be 28 feet with 50 feet of right-of-way. These roadway widths are consistent with roadways throughout the Farmstead development and are in line with the approved zoning text.

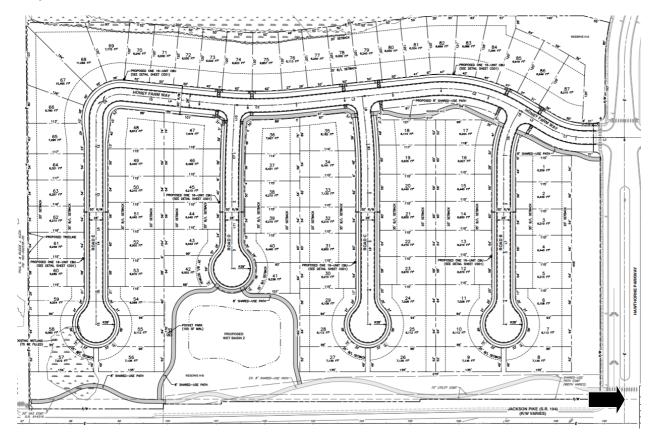
The site plan is incorporating four cul-de-sac roadways, which was an intentional site layout choice, to allow for side yards of only six homes to be oriented toward Jackson Pike. This is compared to other site layouts that would have resulted in 12 or more backs of homes facing Jackson Pike. In addition to the more limited lots adjacent to Jackson Pike, the applicant will continue the same mounding, tree screening and other landscaping between the homes and Jackson Pike as was approved for the development north of Hawthorne Parkway. Landscaping and mounding is also proposed along Hawthorne Parkway. Between the third cul-de-sac and Jackson Pike there will be a wet basin, designed to meet the criteria within the Stormwater Design Manual to ensure quality design for residents of the development as well as where visible from Jackson Pike.

The site plan includes open space reserve area along the northern side of the subarea, along Hawthorne Parkway.

The site will have a multiuse path through it, connecting Hawthorn Parkway and Jackson Pike as required in the zoning text for the larger Farmstead development. This path will connect to the bike path provided along the entire development's Jackson Pike frontage. Multiuse paths will also surround the wet basin pond, creating a scenic pedestrian opportunity. Along both sides of every roadway within this subarea there will either be a five-foot sidewalk or a multiuse path for residents to utilize.

Lot size and widths will vary within the subarea but will have minimum lot size of 6,000 square feet and a minimum width of 50 feet at the build-line, and a 35-foot build line setback. Side yard setbacks will be a minimum of 5 feet for interior lots and 10 feet for corner lots, which contribute to the design of the Conservation Neighborhood.

Proposed Site Plan



Landscaping

A variety of landscaping is proposed on the site to create an aesthetically pleasing development. Four to eight-foot mounding is proposed along Jackson Pike and adjacent to homes backing up to Hawthorne Parkway. Each mound is proposed to be landscaped with a row of evergreen trees and a row of deciduous trees, meeting the requirements of Code and the zoning text. A variety of deciduous street trees are provided on all of the roadways. A treeline is proposed along the southern border of the site.

The wet basin pond is proposed to be landscaped with different deciduous and evergreen trees and shrubs. Only 13 trees are required, but 18 have been proposed. Additional landscaping is required around the pond where visible from Jackson Pike. This will include shrubs, perennials, stone outcroppings and shoreline protection with stone slabs and a wetland shelf. The applicant has provided landscaping and hardscaping around the pond that combines the Tier I and Tier II requirements, due to the partial visibility from Jackson Pike. It appears as if the reinforced fencing along the southern portion of of the site fronting Jackson Pike is located where the wet basin had been in previous submissions. Staff recommends that the reinforced fencing be relocated to a more appropriate location in reference to the wet basin.

Landscaping typicals for different home types have been provided showing the location of three trees and shrubs, as well as the location of additional plantings located on corner lots or high impact lots, including those at the end of cul-de-sacs.

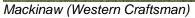
A typical for landscaping around CBU mailboxes is provided and is consistent with the larger Farmstead development, as well as a note stating that all service structures will be landscaped per Section 1136.08.

Buildings

The proposed home designs are described as a modern farmhouse style. The home styles provided include single-story and two-story buildings, with two-car garages. Although the general style of the neighborhood is considered modern farmhouse, the applicant has provided a large variety of homes. There are 18 general styles proposed, and most of those have sub-options for even more variety. Single-story homes are required to be a minimum of 1,400 square feet, while two-story homes are required to be 1,800 square feet minimum. All the options either meet these requirements or will require standard additions to them to meet the requirement, which are provided by the home builder. These home styles are very similar to most of what has been approved for the larger Farmstead development and meet the zoning and development text requirements. The proposed color palette is the same palette that was submitted and approved with the larger Farmstead development plan.

Proposed Home Option Examples







Harper (Modern Farmhouse)



Redwood (Grande Vista)



Denali (Pacific Craftsman)





Greenbriar (Urban Modern)

Preston (Urban Modern)

Lighting

A photometric plan has been provided showing the location of each street lighting fixture. Each fixture will be located on one side of the street placed between 250 and 350 feet apart as required per Section 1101.05(m). All lighting fixtures are proposed to be the beacon style as per standard drawing C-GC-95C. This is consistent with the layout and design of the rest of the Farmstead development.

Stormwater

A stormwater retention pond is proposed on the eastern side of the site. A preliminary review of the retention pond shows that the capacity and expected runoff are anticipated to meet City stormwater requirements. The retention pond also meets or exceeds the minimum distance required from buildings. The retention pond, which is expected to be adequate to service the site will be further reviewed during the final engineering plans phase. If any reconfiguration were to be needed and is significant, it may require the approval of a development plan amendment.

Development Text

A Development Text for Subarea H was provided with the Development Plan. The Zoning Text for the larger Farmstead development required a Development Text and the time that a development plan would be approved. The Development Text lays out standards that are generally consistent with the requirements of the larger Zoning Text, while specifically addressing specifics of Subarea H lots, site layout, landscaping, etc. Staff is supportive of the text and believes that the proposed Development Plan adheres to the requirements within.

3. PUD Analysis

Per Section 1135.14 of the Codified Ordinances of Grove City, Planning Commission is charged with reviewing and evaluating Preliminary and Final Development Plan applications for Planned Unit Development districts by applying the eight (8) findings.

(1) The uses proposed will not be detrimental to present and potential surrounding uses, but will have a beneficial effect that could not be achieved under any other district.

Finding is Met: The site is recommended for "Conservation Neighborhood" in the GroveCity2050 Future Land Use and Character Map, and developments in this classification should be designed to preserve large natural areas. The overall Farmstead development preserves 66 acres or 31.5 percent of the site within reserve areas with housing placed between these areas. Since originally being approved for 120 residences, the applicant has reduced the proposed number of residences to only 87, further reducing the amount of homes on the site. Staff believes the proposed development meets the expectations of a conservation neighborhood and believes that the amount of open space provides an appropriate transition between the residential areas to the west and rural areas to the east.

(2) Any exception from Zoning Code (Ordinance C79-74, passed January 20, 1975) requirements is warranted by the design and amenities incorporated in the Development Plan.

Finding is Met: The proposed plans are in compliance with the approved Zoning Text and are consistent with the development text that are included within this application.

(3) Land surrounding the proposed development can be planned in coordination with the proposed development and that it is compatible in use.

Finding is Met: The proposed development is generally compatible in use and design to the anticipated future development and land use of the area. The multiuse path is proposed that connects the north and south of the site along Jackson Pike and eventually to the Scioto Grove Metro Park.

(4) The proposed change to a Planned Unit Development District is in conformance with the general use intent of the area.

Finding is Met: The proposed development aligns with the recommendation of the GroveCity2050 Future Land Use and Character Map and the Southeast Area Study density, both of which recommend the site maintain a more rural character and preserve open space.

(5) Existing and proposed streets are suitable and adequate to carry anticipated traffic within the proposed district and in the vicinity of the proposed district.

Finding is Met: As the roadways within the subarea ultimately all terminate into cul-de-sacs, Staff anticipates that traffic within this subarea will be mostly limited to the residences of this subarea and that the proposed streets will be adequate.

(6) Existing and proposed utility services are adequate for the proposed development.

Finding Can Be Met: The existing and proposed utility services are adequate for this development. Further examination of proposed utilities will occur with the site improvement plan at the final engineering stage.

(7) Each phase of the proposed development, as it is proposed to be completed contains the required parking spaces, landscape and utility areas necessary for creating and sustaining a desirable and stable environment.

Finding is Met: Adequate parking, landscaping and utilities are proposed to create a desirable environment and will be developed as a subarea within a single phase.

(8) The proposed Planned Unit Development District and all proposed buildings, parking spaces and landscape and utility areas can be completely developed within seven years of the establishment of the district, unless otherwise provided for by Council.

Finding is Met: The proposed project, including building, parking spaces, landscaping and utilities can be completely developed within seven years.

4. GroveCity2050 Guiding Principles Analysis

The City of Grove City adopted the GroveCity2050 Community Plan in January 2018 which contains specific goals, objectives and actions to guide growth in the community. Five (5) guiding principles are identified that articulate Grove City's community values and direct the recommendations in the Plan. Applications submitted to Planning Commission are reviewed based on these 5 Guiding Principles:

(1) The City's small-town character is preserved while continuing to bring additional employment opportunities, residents and amenities to the community.

Finding is Met: This neighborhood will provide a style of housing that is in demand, and bring additional residents to the City. The neighborhood will also contribute to the multiuse path network and provide a transition from residential housing to rural farmland.

(2) Quality design is emphasized for all uses to create an attractive and distinctive public and private realm.

Finding is Met: A modern farmhouse style, with high-quality materials, landscaping for each unit, street trees and screening will provide an attractive community. High impact lots are considered

and provide for additional features. The design is very cohesive with the larger Farmstead development.

(3) Places will be connected to improve the function of the street network and create safe opportunities to walk, bike and access public transportation throughout the community.

Finding is Met: Although the roadways within the subarea terminate into four cul-de-sacs, the roadways are adequate for the traffic that is expected on them and were intentionally designed to favor the appearance of the community from Jackson Pike. Sidewalks and multiuse paths will create safe and connected transportation options for pedestrians and cyclists. Public transportation is not currently available in the area.

(4) Future development will preserve, protect and enhance the City's natural and built character through sustainable practices, prioritizing parks and open space and emphasizing historic preservation.

Finding is Met: The design of this neighborhood meets the overall Conservation Neighborhood style of the Farmstead development, which prioritizes open space and reserves. This area does not include any historic properties or known historic artifacts; thus, the scope of historic preservation was not considered.

(5) Development provides the City with a net fiscal benefit.

Finding is Met: The proposed single-family homes provide for an in-demand housing type and will provide increase in tax revenue.

5. Recommendation

After review and consideration of the Farmstead-Subarea H Final Development Plan, the Development Department recommends Planning Commission make a recommendation of approval to City Council for the Development Plan with the following stipulations:

- 1. Further detail shall be submitted to the Development Department for the homes located at the terminus of the proposed cul-de-sacs, showing additional architectural detail and appropriate landscaping to ensure a quality streetscape. These lots are identified on the plan sheets as 8, 9, 26, 27, 41, 42, 56, 57.
- 2. The location of the protective fence along Jackson Pike shall be amended on plans to be where adjacent to the retention pond.
- 3. Please correct the typographic error for the note on the reinforced fencing to state that the detail is referenced on sheet 701, instead of 702.

6. Detailed History

2018

City Council approved the Preliminary Development Plan for the Farmstead Development with Resolution CR-29-18.

City Council approved the Rezoning of 209.5 acres to PUD-R with zoning text, upon the annexation of the site with Ordinance C-68-18.

2019

City Council approved the Development Plan for the Farmstead Development with Resolution CR-01-19.

City Council approved the Plat of Farmstead, Phase 1 with Ordinance C-62-19.

City Council approved Ordinance C-06-19 to allow the City Administrator to enter into a Developers Agreement with Grand Communities LLC for public improvements for the Farmstead Development.



Grove City Planning Commission FINAL DEVELOPMENT PLAN APPLICATION

Please provide the requested information and submit to:

DEVELOPMENT DEPARTMENT 4035 BROADWAY GROVE CITY, OHIO 43123 614-277-3004

grovecityohio.gov/development

PROJECT / PROPERTY INFORMATION

PROJECT NAME: Farmstead - Sub Area H

PROJECT LOCATION: 62 Jackson Pike

STREET ADDRESS (OR NEAREST INTERSECTION	WITH DISTANCE AND DIRECTION)
PARCEL ID NUMBER: 040016097 + 040016100	ACREAGE AFFECTED BY THIS APPLICATION: 21.37
EXISTING ZONING: Planned Unit Development - Residential	EXISTING LAND USE: Residential / Agricultural
PROPOSED ZONING: Planned Unit Development - Residential	PROPOSED LAND USE: Residential

FUTURE LAND USE DESIGNATION: Residential

PROPERTY OWNER INFORMATION

Note: Property ownership information should reflect how the property is held in accordance with the Franklin County Auditor's Office. Votlad U.

JOHN HANCOCK TR.	326 E. MARKET	ST. SANDUSKY, OH 44870
Name	Address	City, State, Zip
419-656-2658	419-625-2881	ihhancock & C gmailicom
Phone	Fax	Email

APPLICANT INFORMATION

Note: The applicant is the person(s) or entity seeking approval of this application.

Michael Kady	Land De	velopment Manager	Fischer Development Company / Grand Communities Ltd.	
Name	_	Title	Company / Organization	
3940 Olympic Blvd S	Suite 100		Erlanger, Kentucky 41018	
Address			City, State, Zip	
(859) 344-2708	n/a		mkady@fischerhomes.com	
Phone		Fax	Email	

AUTHORIZED REPRESENTATIVE

Check box if same as Applicant: 🗆 Note: The authorized representative is the person(s) or entity representing the applicant. As the authorized representative, you must have the legal authority to speak, represent and make commitments on behalf of the applicant. The City does not take any responsibility for the lack of communication between the authorized representative, applicant or related parties.

Name Title		Company / Organization	
Address		City, State, Zip	
Phone	Fax	Email	-

Relationship to the Applicant: (e.g. legal counsel, engineer, architect, land planner, contractor, etc.)

DATE RECEIVED: 03-04-20	RECEIVED BY: MH	PAYMENT AMOUNT: \$2,840.00
ENTATIVE PC MEETING DATE: 05-05-20	PC RECOMMENDATION:	CHECK NUMBER: 625102
PROJECT ID NUMBER: 202003040010	CITY'S REVIEW ENGINEER:	CITY'S PLAN REVIEW ENGINEER:
PLANNER IN CHARGE: Jimmy Hoppel		

ADDITIONAL PROJECT INFORMATION	and the second
PROJECT NAME: Farmstead Sub Area H	
	ential 🖹 Industrial 🗆 Mixed 🗆 Other 🗆
ACREAGE DISTURBED: TOTAL FLOO	DR AREA:
NUMBER OF BUILDINGS:BUILDING HEI	GHT:
ESTIMATED NUMBER OF PERMANENT JOBS CREATED (IF APPLICABLE):	
ESTIMATED VALUATION OF BUILDING IMPROVEMENTS:ESTIMATED	VALUATION OF SITE IMPROVEMENTS:
PROPERTY OWNER AUTHORIZATION OF APPLICANT SUBMITTA	L AND SITE VISIT(S)
JOHN HANCOCK, TR., the	current property owner hereby authorize the
applicant FISCHER DEVELOSMENT CO / GRAND CAMMUNITIES LA	
bound by all representations and agreements made by the applicant and/	
Additionally, as the current property owner, knowing that site visits to the	property may be necessary, I hereby authorize
City representatives to enter, photograph and post notices on the pr	operty described in this application.
Signature of Current Property Owner: Hancake Trus MARY EUSAN HANCOCK DISCRETION	Date: 4/17/2020
STATE OF OHIO, COUNTY OF FRANKLIN	
The above individual(s), being first duly sworn, deposes on oath and says that he Affidavit subscribed by him/her, knows the contents thereof, and that the statement	nts therein are true.
SUBSCRIBED AND SWORN TO before me this 17 day of April	, 20 20.
Official Seal and Signature of Notary Public	
APPLICANT'S AUTHORIZED REPRESENTATIVE SAFFIDAVIT	
	, the applicant or authorized representative,
have read and understand the contents of this application. The informatic	
and other information submitted is complete and in all respects true and co	orrect, to the best of my knowledge and belief.
Signature of Applicant or Authorized Representative:	Date:
STATE OF OHIO, COUNTY OF FRANKLIN	
The above individual(s), being first duly sworn, deposes on oath and says that he/ Affidavit subscribed by him/her, knows the contents thereof, and that the statemer	
SUBSCRIBED AND SWORN TO before me thisday of	, 20
Official Seal and Signature of Notary Public	
Revised 12/19	Page 2 of 5



Grove City Planning Commission FINAL DEVELOPMENT PLAN APPLICATION

Please provide the requested information and submit to:

DEVELOPMENT DEPARTMENT 4035 BROADWAY GROVE CITY, OHIO 43123 614-277-3004

grovecityohio.gov/development

PROJECT / PROPERTY INFORMATION

PROJECT NAME: Farmstead - Sub Area H

PROJECT LOCATION:	
STREET ADDRESS (OR NEAREST INTERSECTIO)	N WITH DISTANCE AND DIRECTION)
PARCEL ID NUMBER: 040016097	ACREAGE AFFECTED BY THIS APPLICATION: 21.37
EXISTING ZONING: Planned Unit Development - Residential	EXISTING LAND USE: Residential / Agricultural
PROPOSED ZONING: Planned Unit Development - Residential	PROPOSED LAND USE: Residential
Residential	

FUTURE LAND USE DESIGNATION: Residential

PROPERTY OWNER INFORMATION

Mana	م م در او او ۸		01 01 1 71	_
Grand Communities LLC	3940 Olympic Blvd., Suite 100	Erlanger, Kentucky 41018		
Note: Property ownership information	a should reflect how the property is h	eld in accordance with the Frankli	in County Auditor's Office.	

(859) 344-2708	/a mkady@fischerhomes.com		City, State, Zip
Phone	Fax		Email

APPLICANT INFORMATION

Note: The applicant is the person(s) or entity seeking approval of this application.

Michael Kady	Land Development Manager	Grand Communities LLC	
Name	Title	Company / Organization	
3940 Olympic Blvd Suite	100	Erlanger, Kentucky 41018	
Address		City, State, Zip	
(859) 344-2708	n/a	mkady@fischerhomes.com	
Phone	Fax	Email	

AUTHORIZED REPRESENTATIVE

Check box if same as Applicant: Note: The authorized representative is the person(s) or entity representing the applicant. As the authorized representative, you must have the legal authority to speak, represent and make commitments on behalf of the applicant. The City does not take any responsibility for the lack of communication between the authorized representative, applicant or related parties.

Name	Title	Company / Organization	
Address		City, State, Zip	
Phone	Fax	Email	

Relationship to the Applicant: (e.g. legal counsel, engineer, architect, land planner, contractor, etc.)

FOR OFFICE USE ONLY		
DATE RECEIVED: 3/4/20	RECEIVED BY:	PAYMENT AMOUNT: \$2,840.00
TENTATIVE PC MEETING PATE: 5/5/20	PC RECOMMENDATION:	CHECK NUMBER: 625102
PROJECT ID NUMBER: 202003040010	CITY'S REVIEW ENGINEER:	CITY'S PLAN REVIEW ENGINEER:
PLANNER IN CHARGE:		

ADDITIONAL PROJECT INFORMATION					
PROJECT NAME: Farmstead Sub Area H					
DEVELOPMENT TYPE: Commercial Retail 🛛 Commercial Office 🖾 Residential 🖬 Industrial 🗔 Mixed 🗆 Other 🗆					
ACREAGE DISTURBED: TOTAL FLOOR AREA:					
NUMBER OF BUILDINGS:BUILDING HEIGHT:					
ESTIMATED NUMBER OF PERMANENT JOBS CREATED (IF APPLICABLE):					
ESTIMATED VALUATION OF BUILDING IMPROVEMENTS:ESTIMATED VALUATION OF SITE IMPROVEMENTS:					
PROPERTY OWNER AUTHORIZATION OF APPLICANT SUBMITTAL AND SITE VISIT(S)					
I_Michael Kady (on behalf of Grand Communities, LLC.), the current property owner hereby authorize the					
applicant Michael Kady (on behalf of Grand Communities, LLC.) to submit this application. I agree to be					
bound by all representations and agreements made by the applicant and/or their authorized representative.					
Additionally, as the current property owner, knowing that site visits to the property may be necessary, I hereby authorize					
City representatives to enter, photograph and post notices on the property described in this application.					
Signature of Current Property Owner: Michael Kady Date: 3-3-2020					
STATE OF OHIO, COUNTY OF FRANKLIN					
The above individual(s), being first duly sworn, deposes on oath and says that he/she has read the foregoing Affidavit subscribed by him/her, knows the contents thereof, and that the statements therein are true.					
RI TARY PUS					
SUBSCRIBED AND SWORN TO before me this 3 day of MARCH AND SWORN TO before me this 3 day of					
A DANIEL DICARLO					
Official Seat and Signature of Notary Public					
APPLICANT'S / AUTHORIZED REPRESENTATIVE S AFFIDAVIT					
I, the applicant or authorized representative,					
have read and understand the contents of this application. The information contained in this application, attached exhibits					
and other information submitted is complete and in all respects true and correct, to the best of my knowledge and belief.					
Signature of Applicant or Authorized Representative: Michael Kady Date: 3- 3- 2020					
STATE OF OHIO, COUNTY OF FRANKLIN					
The above individual(s), being first duly sworn, deposes on oath and says that he/she has read the foregoing Affidavit subscribed by him/her, knows the contents thereof, and that the statements therein are true.					
SUBSODIES AND SWODIES IN 3Rd Marine State					
SUBSCRIBED AND SWORN TO before me this <u>3</u> day of <u>145 RRY PU</u> , 20 <u>20</u> .					
* DANIEL DICARLO					
Official Seal and Signature of Notary Public					
Revised 12/19 March 17, 2023 Page 2 of 5					

REVIEW FEES

INSTRUCTIONS: <u>All blanks/boxes must be completed or checked in order for the application submittal to be considered complete.</u> The engineering review fee and planning review fee is calculated in accordance with the City's <u>Fee Recovery Policy</u>. The submittal shall include the required number of copies (properly folded and collated) and contain all required supplementary documentation. Submitted materials shall be accurate, measurable and shall address all required checklist items contained within the attached supplemental requirements.

Application Processing Fee:	\$ 300.00
Engineering Review Fee:	\$ 2,540.00
Planning Review Fee:	\$
Total Submittal Fee:	\$ 2,840.00

GROVECITY2050 GUIDING PRINCIPLES

In January 2018, the City of Grove City adopted the <u>GroveCity2050 Community Plan</u> to update the City's plans and policies to proactively shape where and how the community will grow. The Plan contains specific goals, objectives and actions to guide development in Grove City as well as the following five (5) guiding principles:

- 1. The City's small-town character shall be preserved while continuing to bring additional employment opportunities, residents and amenities to the community.
- 2. Quality design shall be emphasized for all uses to create an attractive and distinctive public and private realm.
- 3. Places shall be connected to improve the function of the street network and create safe opportunities to walk, bike and access public transportation throughout the community.
- 4. Future development shall preserve, protect and enhance the City's natural and built character through sustainable practices, prioritizing parks and open space and emphasizing historic preservation.
- 5. Development shall provide the City with a net fiscal benefit.





Received by City of Grove City 04-24-20

April 24, 2020

Jimmy Hoppel The City of Grove City 4035 Broadway Grove City, Ohio 43123

Dear Mr. Hoppel:

Subject: Farmstead Sub-Area H - Final Development Plan

Grand Communities, LLC. (GCL) is pleased to submit revised plans of the above referenced project for your review. The comments provided by Grove City dated April 16th, 2020 have been addressed with this resubmittal. The plan updates are based on GCL's review of the comments and coordination with staff.

Below is a summary of how each comment has been addressed and attached are the requested revised plan sets.

Site Layout

- 1. Staff still has concerns regarding the eyebrow roadway. It is staffs suggestion that the eyebrow roadway be removed, and that lots 85, 86, and 87 front Honeyfarm Way. *The eyebrow roadway has been removed.*
- Staff suggests, following comment #1, that a rear portion of lots 85, 86, and 87 could be absorbed into the adjacent Reserve.
 The lots have been adjusted accordingly.
- 3. Provide a walking path around the entire perimeter of the wet basin pond. The wet basin will have a path around the northern and southern sides and will tie into the trail along Jackson Pike in two different locations. Currently there is not enough room to get a second trail between the pond and Jackson Pike Mounding.
- 4. If the eyebrow roadway remains, it appears as if a fire truck will not be able to stay within the road. Please modify accordingly.

The eyebrow roadway has been removed.



Landscaping

- Please correct Comment #21 of the General Landscape Notes on page C700 to state the exact same wording as Individual Parcel note #7, which is correct as written.
 All general notes have been updated and are now similar on both pages C700 & C702.
- 6. Tree Preservation fencing and signage should be installed along the West and South property lines to protect the current wood areas.

This will be protected by silt fence once construction documents are produced.

- Tree Planting Typical on page C701 still states that 4" (inches) of shredded bark mulch is to be used. This should be corrected to state 2-3" (inches).
 All details have been updated; Refer to sheet C701
- 8. Please provide a landscaping detail for landscaping that will be provided around the base of each CBU.

A typical detail for the CBU jas been added on sheet C701, and is consistent with the Farmstead Development.

 An updated version of Note #1 of Individual Parcel Note still requires correction. Pages C700 and C702 are not consistent, as note #1 for The Individual Parcel notes; page C702 lists as #2.

All general notes have been updated and are now similar on both pages C700 & C702.

10. All lots appear to be large enough to have 3 trees planted on them (street trees do not go towards this count, they are in addition to the 3 required per lot). Please state the lots you feel are not large enough for 3 trees and then show on landscape plan where these trees would be planted in the open area by labeling them with the associated Lot #. The Individual Parcel Note #2 has been corrected to indicate all 3 trees shall be planted on the Lot. Min. 1 tree in the front yard.

Photometric Plan

11. Please adjust the lighting layout of add a pole at the entrance of Subarea H to improve lighting at the entrance and crosswalk.

A light has been added by Lot 87.



12. Please provide uniformity requirements including minimums and maximums. The degree to which 0.0fc is currently displayed is not currently acceptable.

The Lighting Statistics table has been added including these items. In addition, the lighting spread accuracy has been increased to the hundredth.

13. Street lights should alternate sides of the streets.

In order to remain consistent with the rest of the development, lighting has not changed to alternate sides of the street.

Utilities

14. If eyebrow roadway does remain, please confirm the routing for water service for lots 86 and 87 through the eyebrow.

The eyebrow has been removed.

15. Please confirm whether manholes will be placed in driveways or not. Manholes will not be placed in driveways. A note has been added to the Grading and Utility sheet as well.

Stormwater

16. In response to comment #23 in the previous comment letter, a permit was provided to remove the wetland. Staff would prefer to see the wetland show on the plans with a note that it is "to be removed", rather than left off all together.

The Wetland is now shown on the Existing Conditions and Demolition Plan and the Grading & Utility Plan sheets as "to be filled".

17. In Basin Z Discharge Table they report the total proposed release rates and WSE. The spillway for this basin discharges to the east to Culvert A. Please clearly show and document the allowable release rates to Culvert A and the proposed release rate to Culvert A. Based on the HydraCAD output there is no issue but currently this is not tracked within the narrative.

An additional column has been added noting spillway discharge. This is noted as the "Secondary device" on the PB-Z node within the stormwater report.

18. On page 7 of the Stormwater Report please change City of Columbus to City of Grove City.

This has been revised.



19. It appears the pond will be at least partially obscured from SR104. Without a more detailed exhibit it is difficult to say how obscured the pond will be. Please either update the design to meet Tier 1 landscape and hardscape standards outlined in the Stormwater Design Manual, or provide a sight distance exhibit that shows that no portion of the pond will be visible from SR 104.

The Basin has been changed to include a combination of Tier I and Tier II requirements.

Building Architecture

20. Please remove the following models as options as they do not meet the minimum square footage requirements outlined in the development text: "Danville" and "Harper".

The models were left in and the minimum square footage was removed. There are options that can be added for the above noted models that would meet the required minimum square footage as noted in the Development Text.

Development Text

21. The following sections appear to be missing from the development text. Please include the following sections: (1) Accessory uses, (2) Fencing, (3) Landscape Materials, (4) Pedestrian/Multiuse Path Lighting, (5) Streams and Wetlands.

The Sections have all been added to the development text and are consistent with the Farmstead Development.

22. On page 2, please update the number of units permitted to the number of lots being proposed (87).

The Development Text has been updated to reflect 87 sites.

23. Provide an example detail of landscaping for high impact sites (specifically cul-de-sac) on the plan sheets.

An example is shown on the plans. Also, the Development Text has been updated to include the cul-de-sac areas as high impact areas.

24. I(F)(b) – add language that "no parking" signage will be posted and either make a note or identify location on the plan sheets.

A signage note is shown on the Site Plan Sheet.

25. Please change the wording in the Open Space section (G) – discussion on who owns and maintains open spaces should occur during the PLAT review and not the Development Agreement. The initial Farmstead development warranted an agreement to work out issues like the school site and other big-picture items, but will not be utilized in this case.

The wording in the Development Text has been updated.



26. Section I (Sidewalks and Paths) (c) – states the Final Development Plan shall be generally consistent with the final development plan. Please revise to state "...consistent with the approved development plan for the Farmstead development..."

The wording in the Development Text has been updated.

27. Section K(a)ii (Roadway Lighting) should also state that the street light spacing shall match the larger Farmstead Development.

The wording in the Development Text has been updated. This is now found in Section L.

- 28. Fire department access roads Please correct the following typographical errors:
 - a. Incorrect Project Name on Project Narrative
 - b. Section I(B)(d) = inconsistent text and numeral
 - c. Section I(E)(b) =remove highlighted sentence
 - d. Section I(L)(a) = should be "determined"

The Project Narrative is included within the Development Text PDF. Also, the other typos and formatting have been updated as requested.

We appreciate the opportunity to provide the revised plans for the proposed Farmstead development. If you have any further questions or need additional information, please contact me at 570-492-8370 or via email at awebb@fischerhomes.com.

Sincerely,

Amanda Webb Project Planner Grand Communities, LLC. City of Grove City, Ohio Project Narrative and Development Text

> Received by City of Grove City 04-24-20

Farmstead

May 5, 2020

Applicant:

Grand Communities, LLC. Contact: Jason M. Wisniewski 3940 Olympic Boulevard, Suite 100 Erlanger, Kentucky 41018 (859) 344-3136

Project Engineer:

Civil & Environmental Consultants, Inc. Contact: Tim Volchko, P.E. 250 Old Worthington Bridge Road, Suite 250 Worthington, Ohio 43085 (614) 540-6633

Farmstead Planned Unit Development (PUD)

Application Index:

The following are included herein as part of the required items:

- 1. Project Narrative
- 2. Zoning Text
- 3. Exhibits/Appendix
 - a. Exhibit A Product Offering Examples

FARMSTEAD SUB-AREA H – PROJECT NARRATIVE

Farmstead Sub-Area H is part of the Farmstead PUD, a residential master planned community located east of Hawthorne Parkway along Jackson Pike. The Farmstead PUD is a modern farmhouse-themed community that consists of various single-family detached residential housing products, active and passive open spaces, and a proposed school (elementary). Sub Area- H is a continuation of the master planned community of Farmstead.

Sub-Area H offers a secluded neighborhood, yet affords residents with easy access to the amenities of the Farmstead PUD. The Farmstead PUD includes numerous active and passive open spaces throughout the community, and includes a central amenity center. All residents of Sub-area H will have access to the amenity center – owned and maintained by a mandatory Homeowners Association.

Homes in Sub-Area H include ranch and two-story designs that are efficient, functional, and open, with exteriors that range from traditional to modern farmhouse styles. In addition to architectural styles, home buyers have the opportunity to customize their exterior through a wide, natural color palette that adds diversity and individuality throughout the neighborhood.

Not only does Farmstead value architectural diversity and land preservation, it also values sustainability. The narrow lot design significantly-reduces initial infrastructure investment and long-term maintenance costs when compared to traditional subdivisions. The design also allows for a minimal amount of homesites (six) to have a side view of Jackson Pike, as opposed to several homes backing to Jackson Pike. This design promotes the rural character along Jackson Pike and allows for a stepdown transition to the east.

FARMSTEAD SUB-ARA H – DEVELOPMENT TEXT

Farmstead Sub-area H is part of the Farmstead Planned Unit Development (PUD) totaling approximately two hundred six (206) acres located along the west side of Jackson Pike and east of Hawthorne Parkway. Sub-Area H which consist of approximately 20 acres allows for single-family and attached residential.

Unless otherwise specified in the submitted drawings or in this written text, the development standards of Part Eleven – Planning and Zoning Code of the Codified Ordinances of the City of Grove City (Local legislation current through 12-4-17) shall apply. Basic development standards are compiled regarding the proposed density, site issues, traffic, circulation, landscape, and architectural standards. These component standards ensure consistency and quality throughout the property's development. The General Development Standards are as follows:

I. GENERAL DEVELOPMENT STANDARDS

- A. Permitted Uses:
 - a. Single-family detached residential dwellings.
- B. Density and Bulk Standards There shall be a maximum of eighty-seven (87) single-family detached dwelling units. Minimum development standards for each sub-area are as follows:

Sub-Area	Minimum Lot Width	Minimum Front Setback	Minimum Side Setback (Interior lot)	Minimum Side Setback (Corner lot)	Minimum Rear Setback	Minimum Lot Size	Minimum Livable Floor Area
Sub-Area H	50' 25'	5'	10'	20'	6,000 sf	1,400 sq. ft. (ranch)	
						1,800 sq. ft. (two-story)	

- a. Lot widths are measured at the front setback line shown on each lot as depicted by the Final Development Plan.
- b. Corner lot setbacks are measured from the right-of-way line (not front of lot line).
- c. Building separation shall be a minimum of ten feet (10') from building-to-building, and does not include shared walls internal to building.
- d. The maximum building height is thirty-five feet (35') from finished grade at the front of the home to the mid-point of the gable.
- e. Minimum floor areas exclude any non-livable areas (garage, basement and/or walk-out floor area).
- f. Individual lot front yard setback can exceed the specified minimum front yard setback.
- C. Density:
 - a. A maximum of eighty-seven (87) residential dwelling units are allowed.

- D. Architectural Standards:
 - a. Farmstead is themed as a modern farmhouse community, and representative architecture planned for each sub-area as depicted on the Product Offering Examples (Exhibit A). Representative architecture provided in Exhibit A is for illustrative purposes only. The following architectural standards shall apply:
 - b. Color Palettes: A mixed color palette shall be utilized on home exteriors, as found in Exhibit
 A. A mixed palette on a single building should be carefully selected so that all colors are harmonious.
 - c. Exterior Materials: Permitted materials include the following:
 - i. Brick and/or brick veneer.
 - ii. Stone, cultured stone, and/or stone veneer.
 - iii. Fiber cement board.
 - iv. Stucco.
 - v. Dryvit (EIFS).
 - vi. Wood lap siding, composite lap siding, and cedar shake (painted or stained).
 - vii. Vinyl siding with a minimum thickness of 0.044".

d. Home Mix:

- i. To prevent monotony there shall be no duplication of the same plan within one (1) homesite on the same side of the street or directly across the street. There shall not be a duplication of the same elevation diagonally across the street. Home mix guidelines will be consistent with the approved zoning text for the Farmstead PUD. Houses with the same or similar footprint may be allowed within this distance provided that such houses incorporate substantial differences in the front elevations such as material changes, configuration of front porches, etc.
- ii. Additional plans and/or elevations submitted after Final Development Plan approval by City Council shall be approved by the Development Director to allow for alterations based on changes and selections over time, so long as they are consistent with the quality, character and proportions of the building elevations approved with the Final Development Plan, subject to the standards of this Development Text.
- e. Exposed Foundations: There shall be no exposed, unfinished wall or porch foundations. All exposed foundation concrete or block must be finished with one of the following: brick, veneer brick, stone, cultured stone designed by the manufacturer for at-grade or below-grade installation.
- f. Roofs:
 - i. The main roof pitch for single-story residences shall be a minimum 5:12. The main roof pitch for 2-story residences shall be a minimum of 6:12.
 - ii. Extruded aluminum gutters with downspouts are allowed.
 - iii. Roofs shall be finished with dimensional asphalt shingles, cedar shake shingles, or slate or a combination thereof.
 - iv. Roof overhangs shall be a minimum of eight inches (8") on the front and rear.
- g. Windows and Doors: Vinyl windows and vinyl-coated or aluminum clad wood window and door frames are permitted.

- E. Garages, Driveways, and Parking:
 - a. A minimum two-car attached garage (400 square feet) is required for all dwelling units.
 - b. Front-entry and side-entry garages are permitted. Carriage-style garages are considered side-entry.
 - c. No more than three (3) garage bays may face the street on front-entry garages; however, in no instance shall a three-car garage have door openings facing a public street exceed 45% of the width of the house façade, including the garage.
 - d. Driveways shall be a maximum of eighteen feet (18') at the right-of-way, and shall be setback a minimum of one foot (1') from all side property/lot lines.
 - e. Driveways shall be constructed of concrete or decorative pavers.
 - f. All homes shall have a sidewalk connecting the driveway or street to the front door of the home.
- F. Accessory Uses:
 - a. Above-ground swimming pools are prohibited. In-ground swimming pools and hot tubs/spas are permitted so long as they conform to all City Codes.
 - b. All trash, garbage or other rubbish shall be kept in each owner's garage, except on the days which the trash, garbage or other rubbish is collected, per Code Section 725.07.
- G. Streets and Circulation Interior street patterns, exterior road connections/intersections, and proposed street cross-sections shall be generally consistent with depictions on the Final Development Plan. The intent of the roadway network is to mimic the character of existing area roadways and maintain a rural character along Jackson Pike. In addition, the following standards shall apply:
 - a. Streets on the site shall be constructed and laid out based on the Final Development Plan
 - b. Streets proposed at twenty-eight feet (28') in width shall only permit parking on one (1) side, and streets that are narrower shall have no on-street parking and will be identified with "No Parking" signage consistent with the Final Development Plan.
 - c. Streets shall have a minimum of a fifty foot (50') right-of-way.
- H. Open Space Open space shall be generally consistent with depictions on the Landscaping Plan included in the Final Development Plan. However, open space calculations on final engineering/plats may vary from calculations provided herein without approval from the City Planning Commission and/or City Council, provided that it meets the requirements of Section 1101.9(b) of the Grove City Code. In addition, the following standards shall apply:
 - a. All open spaces, including stormwater detention/retention ponds, shall be owned and

maintained by the Homeowners Association unless determined otherwise the plat review process. Open spaces will be deeded to the Homeowners Association, and transfers will occur in phases after the open spaces are developed.

- b. Entry features, fencing, walls, signage, columns/piers, fountains, and related landscaping and lighting are permitted within open spaces, only to the extent that the areas are still usable for residents as either active or passive open space.
- I. Landscaping, Buffering, and Screening Landscaping, buffering, and screening shall be in general conformance with the Landscaping Plan. In addition, the following standards shall apply:
 - a. Any portion of a lot not occupied by a building, driveway, parking area, etc. shall be landscaped with lawn as a minimum.
 - b. Single-family lots shall contain at least three (3) trees and five (5) shrubs as per Section 1136.09(a)(1).
 - c. In order to ensure good horticulture practices and healthy tree development, the relocation of said trees to open spaces in lieu of the homesite may be allowed. The location of the relocated trees shall be depicted on the plans and administratively approved.
 - d. High Impact Areas:
 - i. High Impact Areas will include items such as, but not limited to: additional landscaping, architectural elements, consistent with the Final Development Plan.
 - ii. High Impact Areas are as follows:
 - 1. Homesites that are adjacent to the main entrance.
 - 2. Homesites that are located on a corner lot.
 - 3. Areas that are located at the end of a cul-de-sac and adjacent to Jackson Pike.
 - e. Tree Protection and Replacement:
 - i. Developer(s)/ Builder(s) shall make reasonable and good faith efforts to preserve existing healthy trees on-site during construction.
 - ii. Existing trees that are six inch (6") dbh and larger in good condition to be preserved may be credited toward screen requirements with approval of the Development Department. Ash Trees regardless of condition shall be removed as directed by the City's Urban Forester.
 - f. Street Trees:
 - i. Street trees shall be located along all streets within the Farmstead development and be spaced at a maximum of fifty feet for large class trees, forty feet for medium class trees and thirty feet for small class trees. In the case that trees die, street trees shall be replaced by the property owner for that parcel, if located outside of the right of way.

- ii. Street trees shall vary in species to prevent a monoculture so long as they are in accordance with the City's planting list. Invasive plant species as listed by the Ohio Department of Natural Resources (ODNR) shall be prohibited and the use of native plants will be encouraged. The amount and type of trees shall be approved by the City's Urban Forester.
- iii. At time of installation, all street trees shall have a clear canopy height of at least five feet (5') above the ground for traffic safety purposes.
- iv. The minimum distance between the tree and the back of the street curb shall be two and one-half feet. In the areas where a sidewalk exists or is proposed, the minimum distance between the tree trunk and both the edge of the street and the sidewalk shall be two feet.
- v. The minimum trunk caliper measured at six inches above the rootball for all street trees shall be no less than two (2) inches.
- g. Within the right-of-way of local streets and within any provided sidewalk and landscape easement the developer may install massings of ornamental shrubs, grasses, perennials, or rain gardens, provided that they do not obstruct sight-distance at intersections, encroach upon pedestrian facilities, or obstruct pedestrian visibility, and subject to approval by the City's Urban Forester.
- h. Landscape Materials:
 - i. All landscape/plant materials shall conform to the standards of the American National Standards Institute (ANSI) Z.60 and shall have passed any inspection required under state regulations.
 - ii. Invasive plant species as listed by the ODNR are prohibited within this PUD. The use of native species is encouraged.
 - iii. The minimum size requirements for plant material installed within the PUD are as follows:
 - 1. Deciduous trees: two-and-one-half inch (2-1/2") caliper.
 - 2. Evergreen trees: six feet (6') height.
 - 3. Ornamental trees two-inch (2") caliper.
 - 4. Evergreen and deciduous shrubs used for screening purposes: thirty-six inch (36") height at the time of installation and spread.
 - 5. All other evergreen and deciduous shrubs: either eighteen inch (18") or twenty-four inch (24") in height depending on their placement per Section 1136.09(a)(1).
- i. Screening Mounding shall be provided along Jackson Pike, in general conformance with the Final Development Plan. In addition, the following standards shall apply:
 - i. Mounding shall range in height from a minimum of four feet (4') to eight feet (8').
 - ii. Mounding slopes may range from 3:1 to 10:1.

- iii. The surface of any mound shall be planted in turf grass at a minimum. Planting on the mound per code requires a double staggered row of evergreen trees at a minimum six foot (6') height and maximum twenty foot (20') spacing, one (1) minimum two inch (2") caliper small class tree, and two (2) minimum eighteen inch (18") height deciduous shrubs per forty feet (40') of property line area to be planted.
- iv. Mounding shall vary in height and slope to create a rolling, natural appearance.
- v. Mounding shall be located outside the public right-of-way and shall not obstruct site distance at any driveways or public intersections.
- i. Fencing All fencing must be decorative in nature.
 - i. All fences and/or enclosures must be approved in writing by the Homeowners Association prior to installation.
 - ii. No wood privacy ("stockade") fencing shall be utilized on site.
 - iii. Chainlink fences are not permitted within the Farmstead Development.
- J. Sidewalks and Paths All sidewalks and pathways as depicted on the Final Development Plan shall be installed by the Developer(s) and/or Builder(s), unless otherwise agreed to with the City. In addition, the following standards shall apply:
 - a. Each street shall have a path and/or a sidewalk on each side. Sidewalks may be replaced with a path.
 - b. Sidewalks and paths shall be a minimum of five feet (5') in width.
 - c. The final locations for the sidewalks and pathways through the open space as shown on the Final Development Plan shall be generally consistent with the final development plan for the Farmstead development and will be determined on the construction plans in order to balance aesthetic placement with construction feasibility, topographic features and/or existing vegetation.
 - d. Any pathways or sidewalks located outside of the right-of-way will be placed in an easement at the time platting.
- K. Mechanical Equipment:
 - a. Utility meters and air conditioning equipment shall be located in the side or rear yards, and all such improvements should be located in a manner as to minimize offensive noises, odors, and/or appearances to adjoining properties.
 - b. All plumbing vents and roof ventilators shall be installed to minimize their appearance from the front. All plumbing vents or other roof appurtenances must be painted to match the roof color.

- L. Lighting Unless otherwise specified by the City's Codes, or agreed to with the City, the following lighting standards shall apply:
 - a. Roadway Lighting:
 - i. All lighting fixtures, posts, bases, arms, and accessories shall be in character and consistent with other area lighting fixtures in the Farmstead PUD.
 - ii. Street lighting shall be provided throughout the site as shown on the final development plan and street light spacing shall be consistent with the Farmstead development.
 - b. Landscape Lighting:
 - i. Landscape lighting is permitted so long as it emanates from a concealed source.
 - ii. All landscape lights shall be arranged to direct light away from exterior streets and/or adjacent properties.
 - iii. Except for temporary holiday or celebratory purposes, colored lights are not permitted to illuminate building exteriors.
- M. Mail Delivery Mail delivery is intended to occur with cluster box units (CBUs) unless otherwise restricted by the United States Postal Service (USPS).
 - a. CBUs shall be located in appropriate areas as determined by the USPS and City during the site construction process.
 - b. All mailboxes or CBUs shall have a uniform and consistent design. These fixtures shall be decorative in appearance and shall match the quality and theme of other site fixtures within Farmstead.
 - c. Landscaping shall be installed around CBUs as permitted by the USPS.
- N. Home Owners Association (HOA) A private, mandatory Master Homeowners Association (Master HOA) shall be established for the Farmstead Community. Sub-Area H shall be part of the Farmstead Master HOA.
- O. Utilities All utility lines internal to the development shall be placed underground, including water service, electricity, telephone, gas, and their connections or feeder lines. Meters, transformers, etc. may be placed above ground, but shall be discreetly located at the rear of lots, and screened from the street view.
- P. Regulated Streams and/or Wetlands All streams and wetlands shall be permitted and mitigated for in accordance with the rules and regulations of the United States Army Corps of Engineers (USACE), the Ohio Environmental Protection Agency (OEPA), and the Grove City Stormwater Design Manual.





Product Offering Examples

Sub-Area H

(for illustrative purposes only)





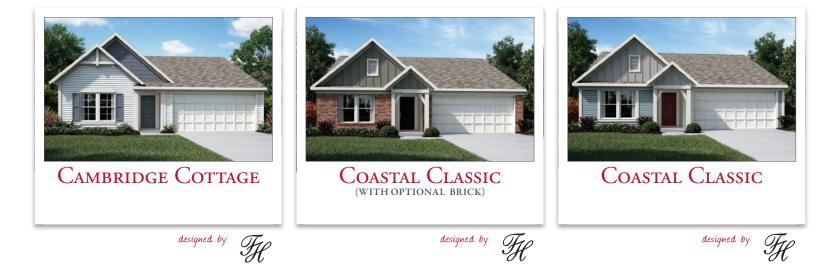
BEACON Maple Street Collection

welcome home.

Approximately 1413 sq ft



CAMBRIDGE COTTAGE



Images & Options Available at **fischerhomes**.com



CUMBERLAND Maple Street Collection

welcome home.

Approximately 2439 sq ft



designed by: Ħ





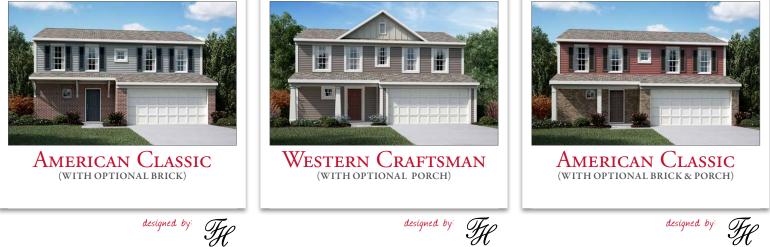
Images & Options Available at fischerhomes.com



DANVILLE Maple Street Collection

welcome home.





Images & Options Available at fischerhomes.com

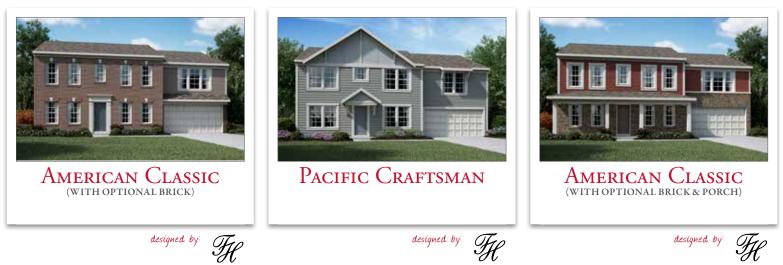


DENALI Maple Street Collection

Approximately 2957 sq ft

welcome home.





Images & Options Available at **fischerhomes**.com



GREENBRIAR Maple Street Collection

welcome home.

Approximately 1983 sq ft







Images & Options Available at fischerhomes.com



GREENBRIAR Maple Street Collection

welcome home.

Approximately 1983 sq ft



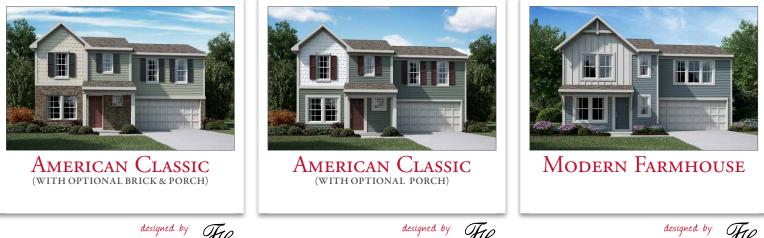
Images & Options Available at **fischerhomes**.com



HARPER Maple Street Collection

welcome home.





designed by: TH





Images & Options Available at fischerhomes.com

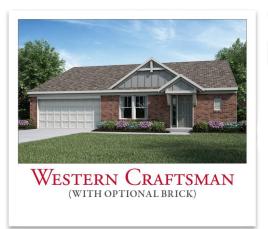


MACKINAW Maple Street Collection

welcome home.

Approximately 1634 sq ft





designed by: TH

Images & Options Available at **fischerhomes**.com

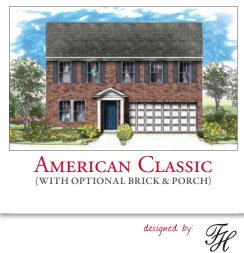


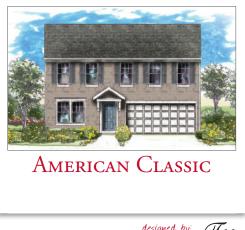
Maple Street Collection

welcome home.

Approximately 2268 sq ft







designed by: TH

Images & Options Available at **fischerhomes**.com



MAYSVILLE Maple Street Collection

welcome home.

Approximately 1427 sq ft



Images & Options Available at fischerhomes.com



PRESTON Maple Street Collection

Approximately 1621 sq ft

welcome home.





Images & Options Available at **fischerhomes**.com





welcome home.

Approximately 1805 sq ft



Images & Options Available at **fischerhomes**.com







welcome home.

Approximately 1805 sq ft



Images & Options Available at **fischerhomes**.com

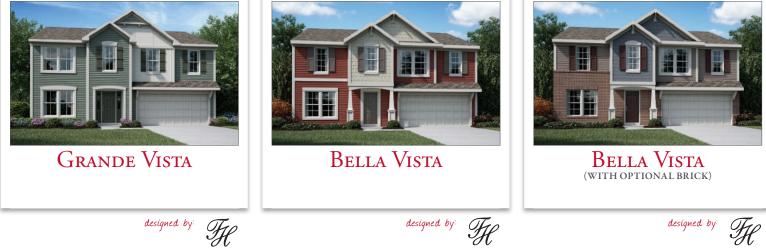


REDWOOD Maple Street Collection

welcome home.

Approximately 2817 sq ft





Images & Options Available at fischerhomes.com

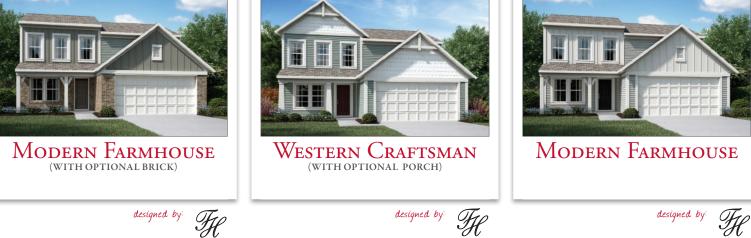


WESLEY Maple Street Collection

Approximately 1842 sq ft

welcome home.





Images & Options Available at **fischerhomes**.com

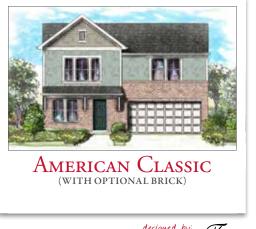


WINCHESTER Maple Street Collection

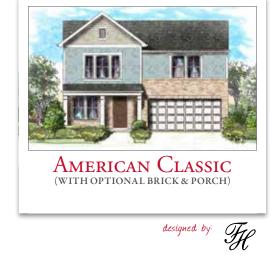
welcome home.

Approximately 1924 sq ft





designed by: Ħ



Images & Options Available at fischerhomes.com

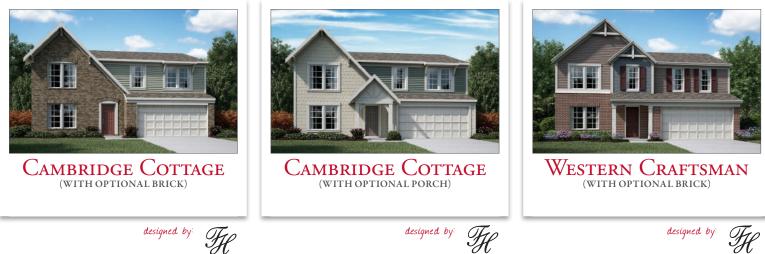


YOSEMITE Maple Street Collection

Approximately 2258 sq ft

welcome home.



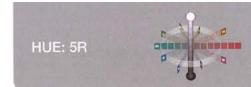


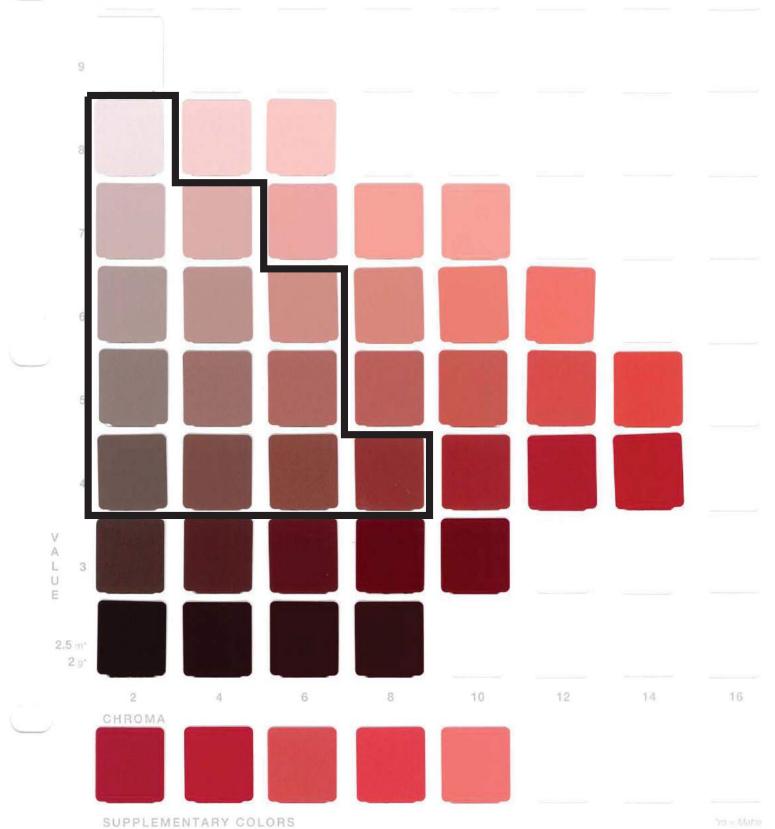




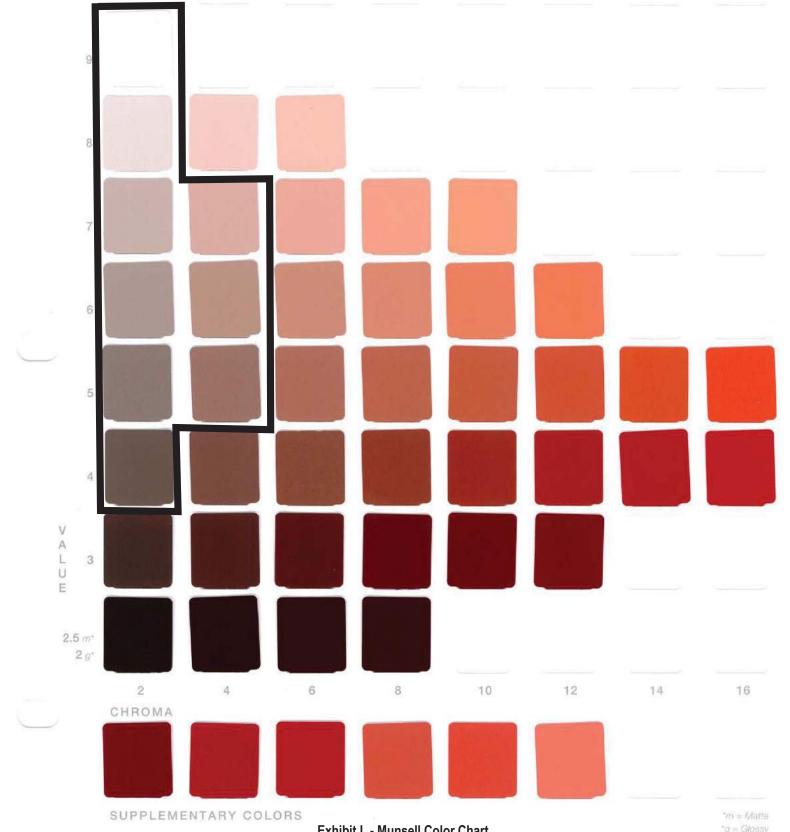
Images & Options Available at **fischerhomes**.com

Farmstead Munsell Color Chart







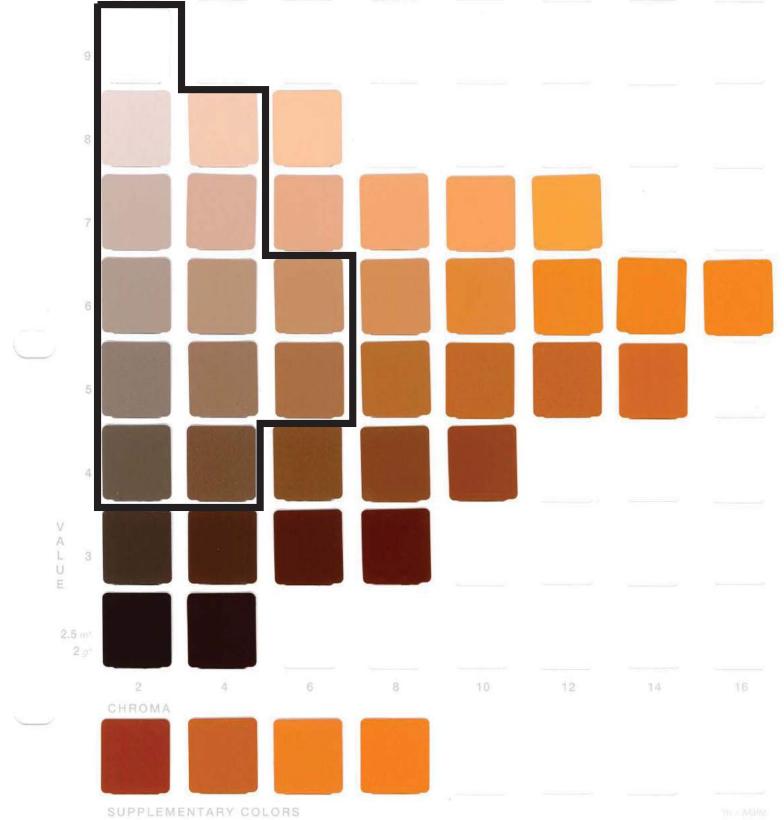


*g = Glossy

HUE: 2.5YR

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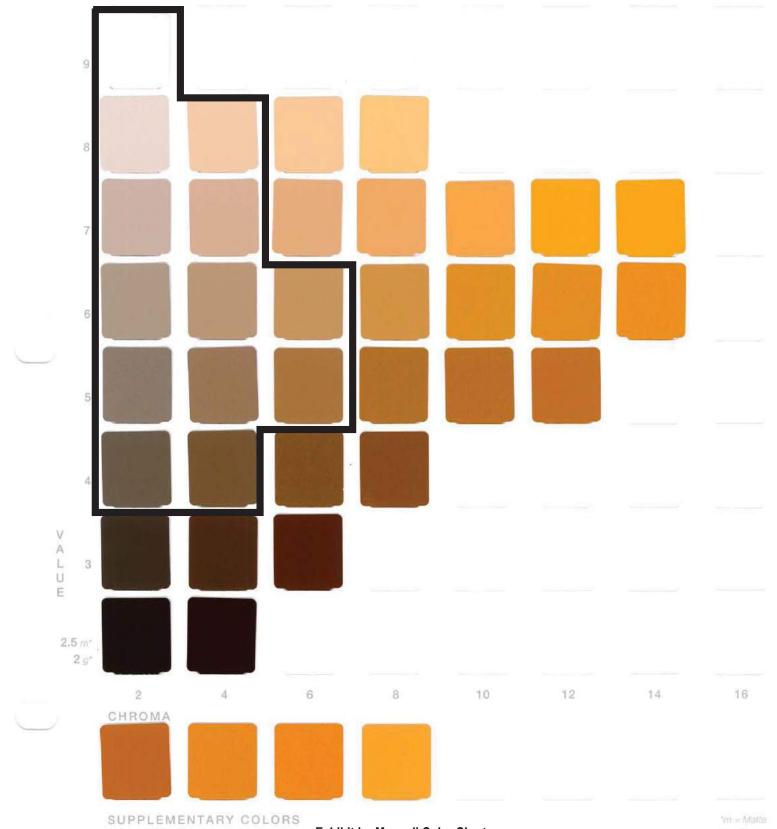
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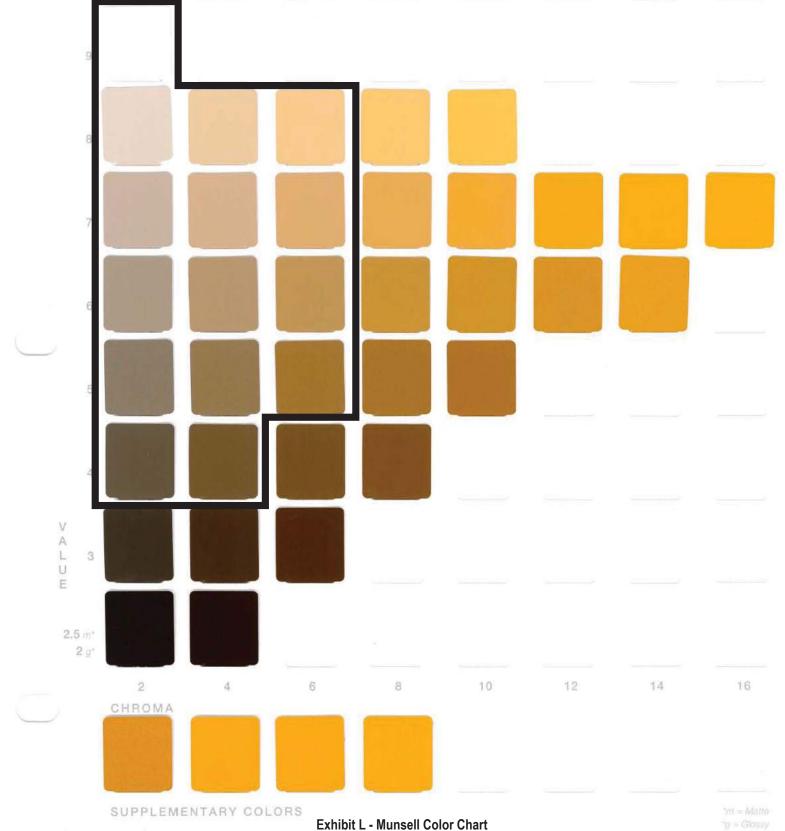
 $f_0 = Glassy$

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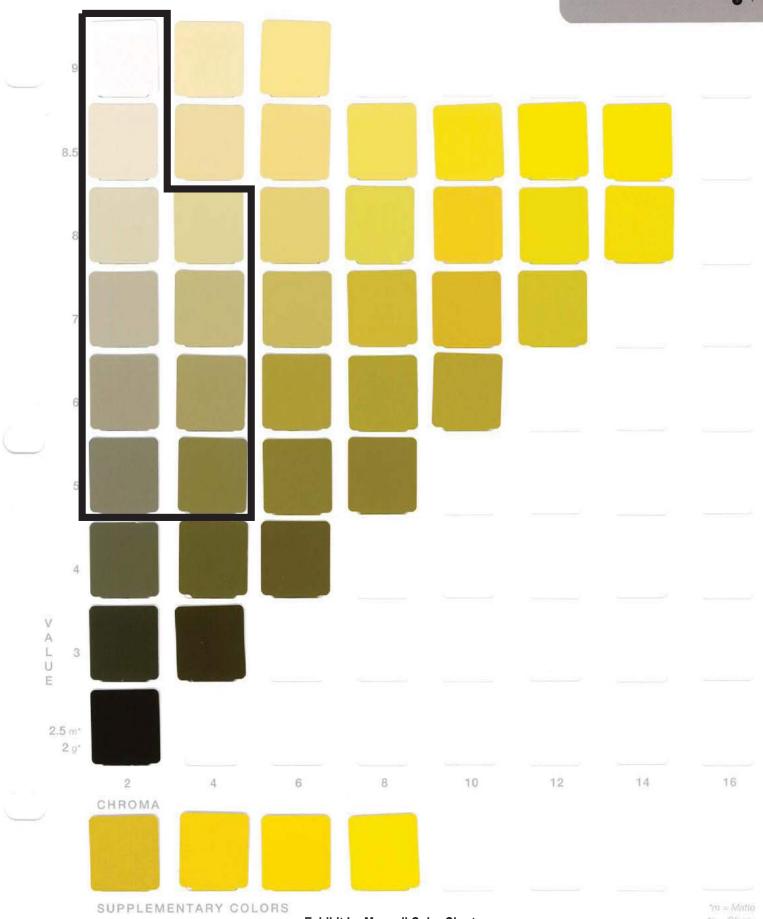
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g = Glossy

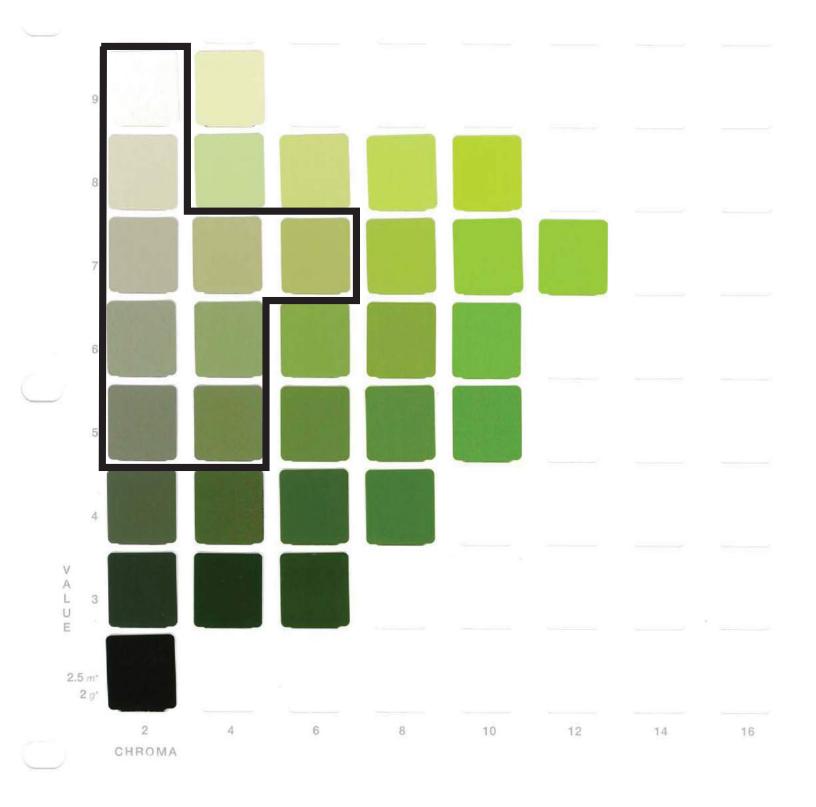


HUE: 5Y

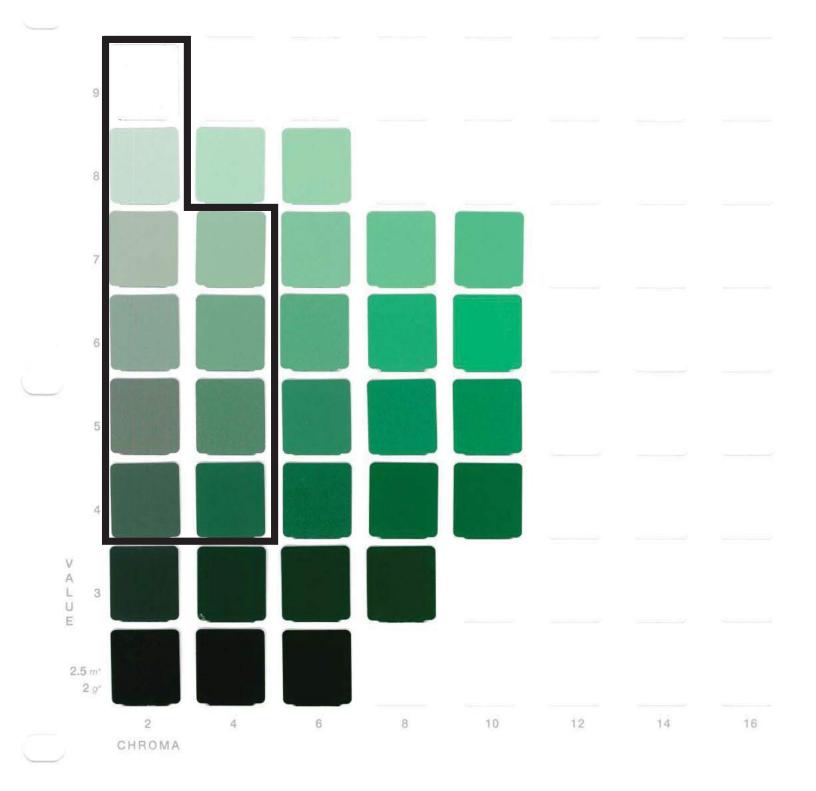


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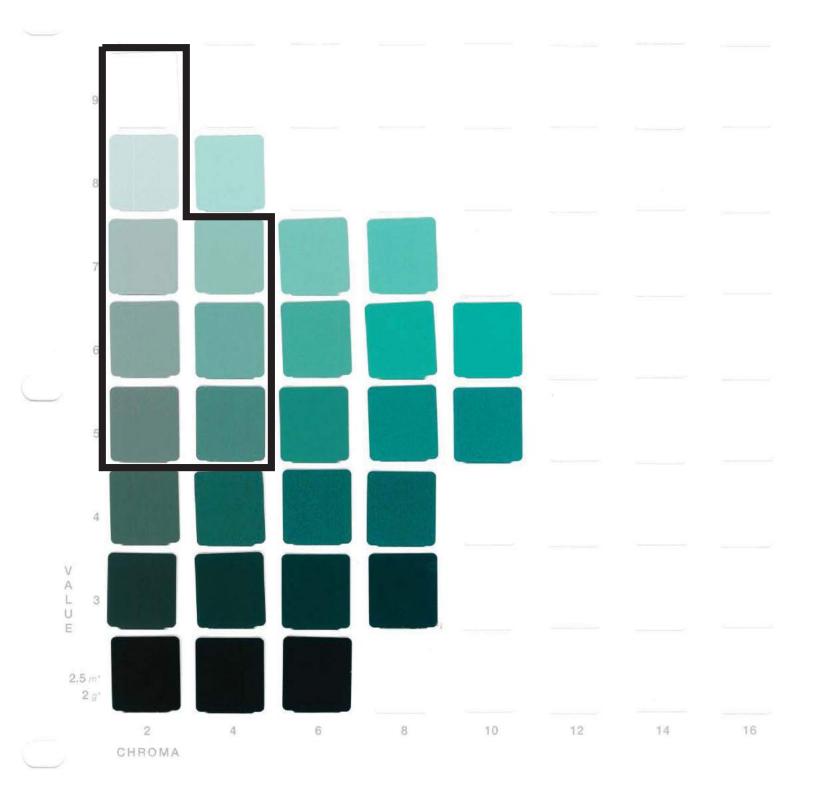
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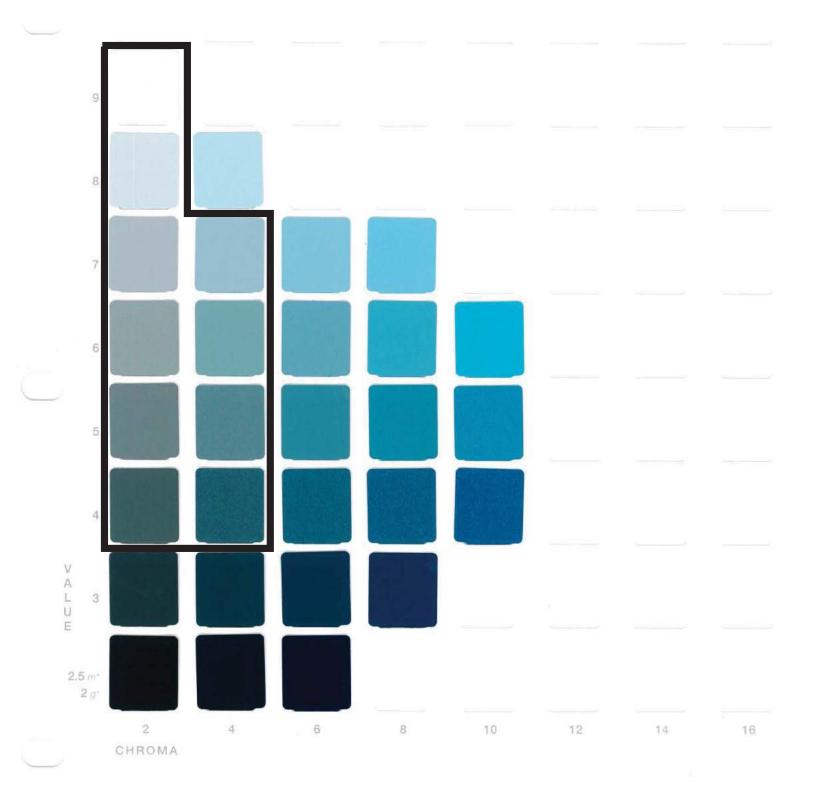


HUE: 5BG



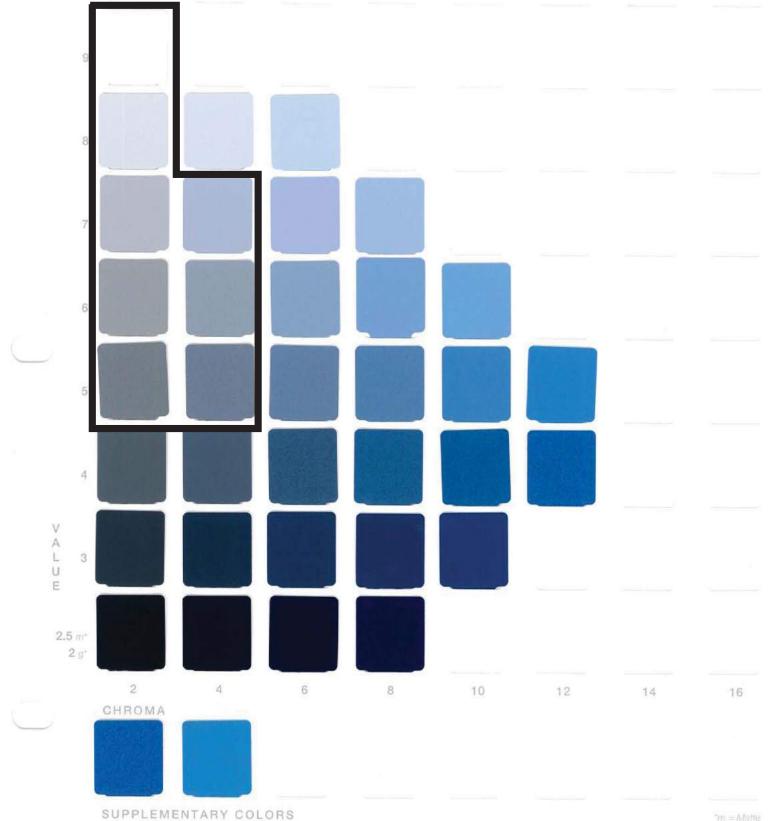
SUPPLEMENTARY COLORS



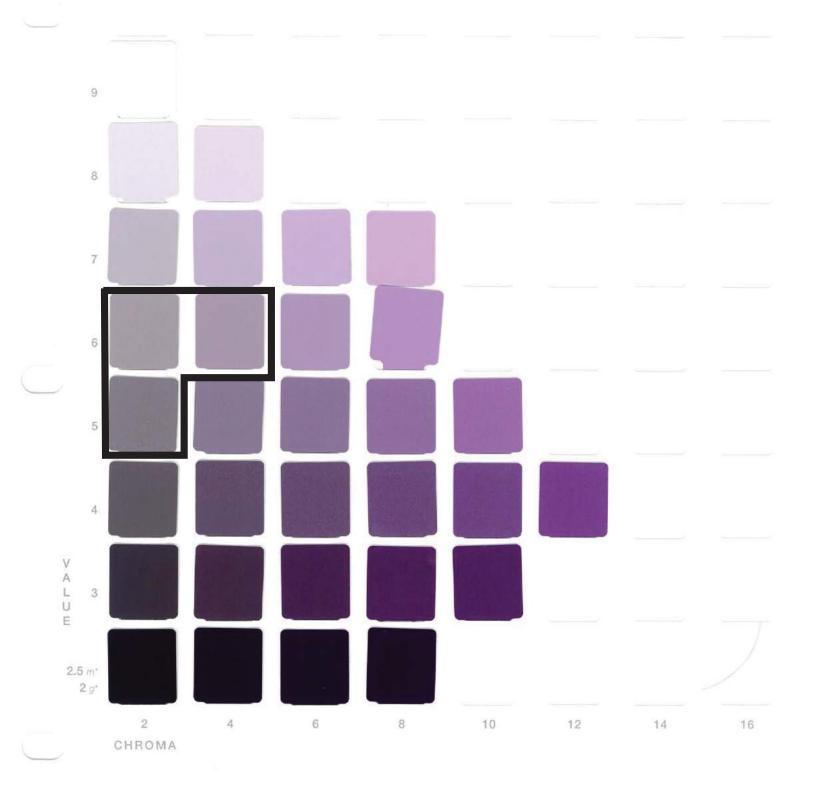


HUE: 5PB

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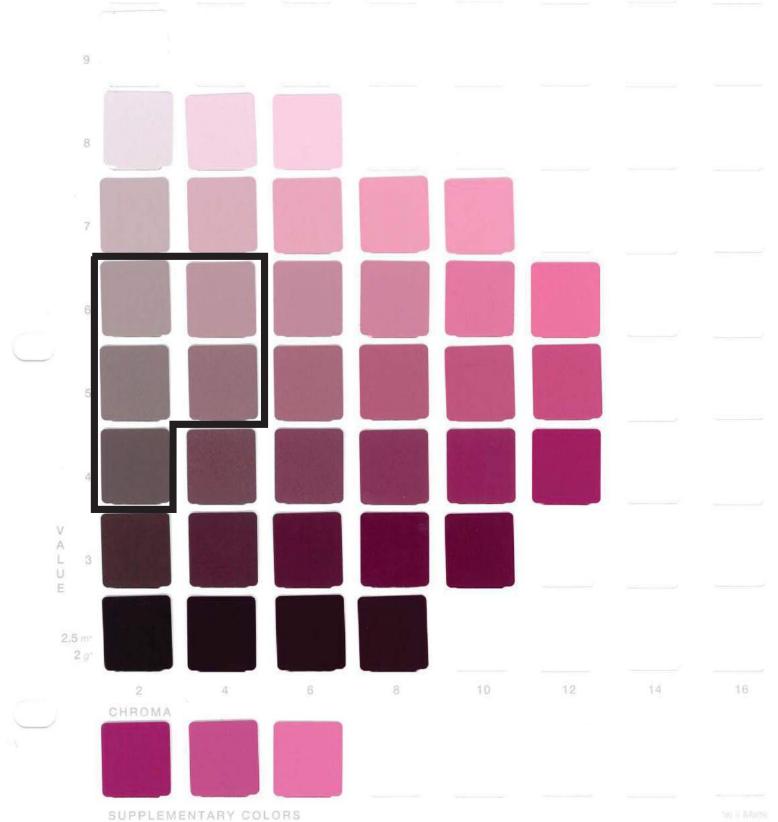


Exhibit L - Munsell Color Chart

g = Gusay



DESCRIPTION OF 21.522 ACRES

Situated in the State of Ohio, County of Franklin, City of Grove City, Virginia Military Survey 1105 and 6115, being part of a 207.933 acre tract of land, conveyed to Grand Communities, LLC, of record in Instrument Number 201906070067841, all of a 1.613 acre tract of land, conveyed to John H. Hancock Limited, of record in Instrument Number 201403120029967, and being part of Lot 3 of the Partition of Ephraim Borror's Estate, of record in Plat Book 3, Page 240, all references to records being on file in the Office of the Recorder, Franklin County, Ohio, said 21.522 acre tract being more fully described herein;

BEGINNING FOR REFERENCE at FCGS Monument 5453 at the Centerline intersection of Jackson Pike (State Route 104) and Hibbs Road (Township Road 255);

Thence, South 36°00'00" West, a distance of 584.47 feet, with the original centerline of said Jackson Pike, to a point;

Thence, South 03°42'59" West, a distance of 2356.10 feet, with the original centerline of said Jackson Pike, to a MAG Nail set at the **TRUE POINT OF BEGINNING** at a southeast corner of said 207.933 acre tract, the northeast corner of said 1.613 acre tract, and being on the west line of a 75.626 acre tract of land, conveyed to Appalachia Ohio Alliance, of record in Instrument Number, 201803210037566, 201803210037570, 201803210037572 and 201803270039767;

Thence, South 03°42'59" West, a distance of 275.67 feet, with the east line of said 1.613 acre tract, the west line of said 75.626 acre tract, and the centerline of said Jackson Pike, to a MAG Nail set at the southeast corner of said 1.613 acre tract, on the west line of said 75.626 acre tract, and being at the northeast corner of a 7.362 acre tract of land, conveyed to Paul G. Klein and Buddie J. Klein, of record in Official Record 00758 J10;

Thence, North 86°45'23" West, passing over an iron pin set at 30.00 feet, passing over a 3/4" iron pipe found at 253.93 feet, for a total distance of 837.90 feet, with the south line of said 1.613 acre tract, the south line of said 207.933 acre tract, and with the north line of said 7.362 acre tract, to an iron pin set;

Thence, through said 207.933 acre tract, the following twenty seven (27) courses:

- 1. North 03°20'51" East, a distance of 50.15 feet, to an iron pin set;
- 2. North 04°48'07" East, a distance of 59.35 feet, to an iron pin set;
- 3. North 07°48'41" East, a distance of 61.47 feet, to an iron pin set;
- 4. North 09°17'50" East, a distance of 204.00 feet, to an iron pin set;
- 5. North 09°09'10" East, a distance of 49.31 feet, to an iron pin set;
- 6. North 06°00'10" East, a distance of 49.31 feet, to an iron pin set;
- 7. North 01°44'21" East, a distance of 47.41 feet, to an iron pin set;
- 8. North 01°53'56" West, a distance of 48.76 feet, to an iron pin set;
- 9. North 02°22'33" West, a distance of 204.00 feet, to an iron pin set;
- 10. North 02°10'20" West, a distance of 54.49 feet, to an iron pin set;
- 11. North 01°30'38" East, a distance of 34.64 feet, to an iron pin set;
- 12. North 03°42'59" East, a distance of 289.88 feet, to an iron pin set;
- 13. North 18°29'36" East, a distance of 55.05 feet, to an iron pin set on the arc of a curve;

Date Prepared: 3/3/2020 File Name: 300277-SV01-Legal 21.522 acres.docx Page 1 of 2:

- 14. With a curve to the left, having a radius of 390.00 feet, a delta angle of 12°31'12", an arc length of 85.22 feet, a chord bearing of South 80°01'25" East and a chord distance of 85.05 feet, to an iron pin set at the point of tangency;
- 15. South 86°17'01" East, a distance of 102.60 feet, to an iron pin set at the point of curvature;
- 16. With a curve to the right, having a radius of 20.00 feet, a delta angle of 90°00'00", an arc length of 31.42 feet, a chord bearing of South 41°17'01" East and a chord distance of 28.28 feet, to to an iron pin set at the point of tangency;
- 17. South 03°42'59" West, a distance of 4.00 feet, to an iron pin set;
- 18. South 86°17'01" East, a distance of 60.00 feet, to an iron pin set;
- 19. North 03°42'59" East, a distance of 4.00 feet, to an iron pin set at the point of curvature;
- 20. With a curve to the right, having a radius of 10.00 feet, a delta angle of 90°00'00", an arc length of 15.71 feet, a chord bearing of North 48°42'59" East and a chord distance of 14.14 feet, to an iron pin set at the point of tangency;
- 21. South 86°17'01" East, a distance of 480.00 feet, to an iron pin set at the point of curvature;
- 22. With a curve to the right, having a radius of 20.00 feet, a delta angle of 90°00'00", an arc length of 31.42 feet, a chord bearing of South 41°17'01" East and a chord distance of 28.28 feet, to an iron pin set at the point of tangency;
- 23. South 03°42'59" West, a distance of 351.33 feet, to an iron pin set;
- 24. South 86°17'01" East, a distance of 5.00 feet, to an iron pin set;
- 25. South 03°42'59" West, a distance of 409.53 feet, to an iron pin set;
- 26. South 86°17'01" East, a distance of 5.00 feet, to an iron pin set;
- 27. South 03°42'59" West, a distance of 119.49 feet, to an iron pin set on a south line of said 207.933 acre tract, and being on the north line of said 1.613 acre tract;

Thence, South 85°19'32" East, passing over a 3/4" iron pipe found at 11.13 feet, on the west Rightof-Way line of said Jackson Pike, for a total distance of 40.01 feet, with a south line of said 207.933 acre tract, and the north line of said 1.613 acre tract, to the **TRUE POINT OF BEGINNING**, containing 21.522 acres, subject to all easements and documents of record. Which 9.050 acres lies within VMS 1105, and 12.472 acres lies within VMS 6115.

All iron pins set are 5/8-inch solid rebar, 30 inches in length, with a yellow plastic cap bearing the initials "CEC INC".

For the purpose of this description the bearing of North 26°24'47" West, as determined for the centerline of Hibbs Road (Township Road 255), as determined between FCGS 1514 and FCGS 5470 by the Franklin County Engineer and shown on the centerline survey plat for Hibbs Road on file at the Franklin County Engineer's Office.

This document is based from an actual field survey performed by or under my direct supervision in March, 2018.

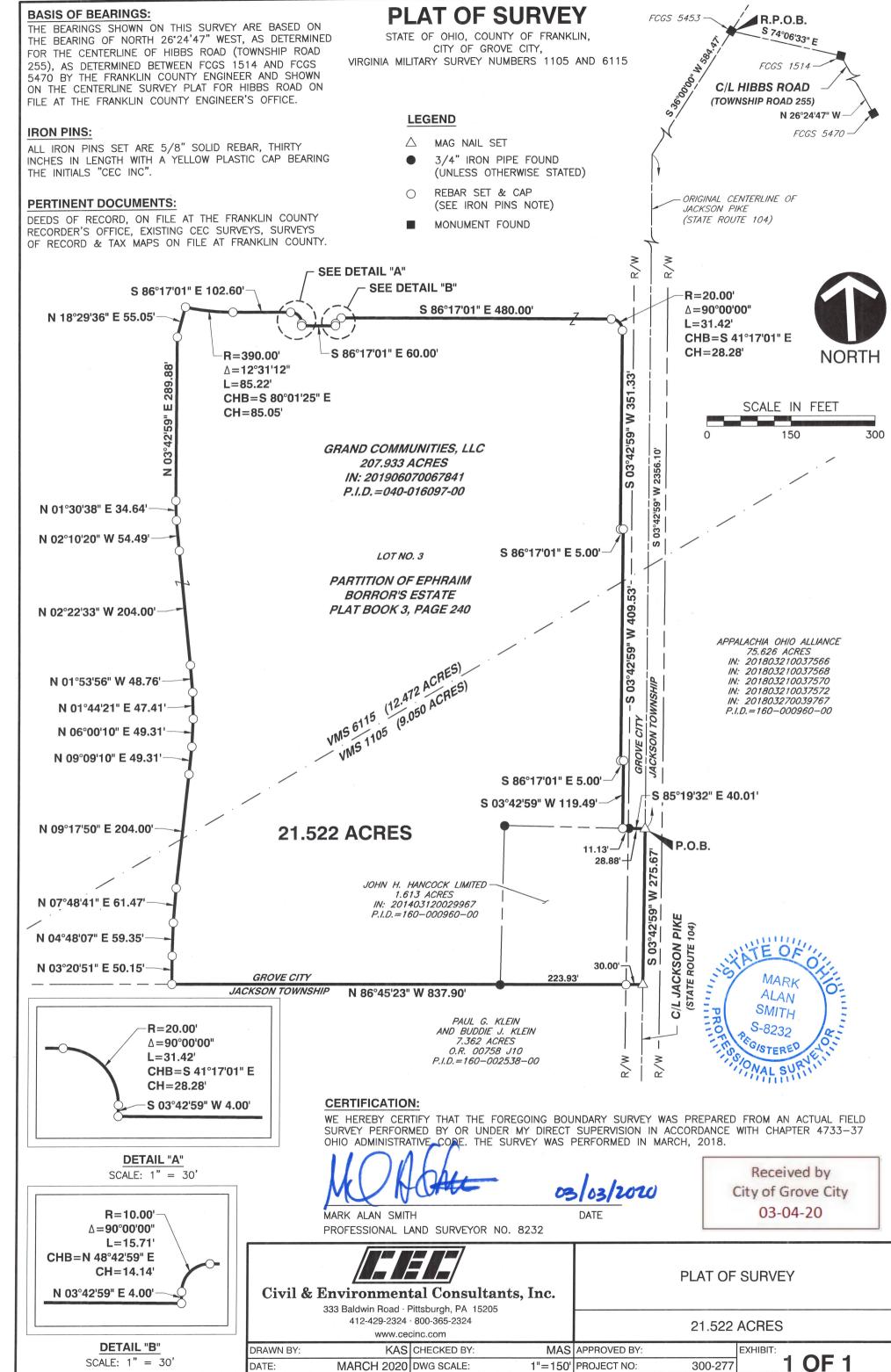


CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Mark Alan Smith, P.S. Registered Surveyor No. 8232

Date

Date Prepared: 3/3/2020 File Name: 300277-SV01-Legal 21.522 acres.docx P:\300-000\300-277\-Survey\Dwg\300277-SV01-SRV-21.522 AC.dwg{LAYOUT1} LS:(3/3/2020 - kasmith) - LP: 3/3/2020 2:28 PM



$\frac{\text{DETAIL "A"}}{\text{SCALE: 1" = 30'}}$ $R=10.00'$ $\Delta=90^{\circ}00'00''$ $L=15.71'$ $N 48^{\circ}42'59'' E$ $CH=14.14'$ $3^{\circ}42'59'' E 4.00'$	MARK ALAN SMITH PROFESSIONAL LAND SURVEYOR NO. 8232		DATE	Received by City of Grove City 03-04-20	
	Civil & Environmental Consultants, Inc.		PLAT OF SURVEY		
	333 Baldwin Road · Pittsburgh, PA 15205 412-429-2324 · 800-365-2324 www.cecinc.com			21.522 ACRES	
DETAIL "B"	DRAWN BY: K	AS CHECKED BY:	MAS	APPROVED BY:	EXHIBIT:
SCALE: 1" = 30'	DATE: MARCH 20	20 DWG SCALE:	1"=150'	PROJECT NO:	300-277 1 OF 1



Final

Effective Date: April 10, 2017 Expiration Date: April 09, 2022

> Ohio EPA APR 10 '17 Entered Directors Journal

OHIO GENERAL PERMIT FOR FILLING CATEGORY 1 AND CATEGORY 2 ISOLATED WETLANDS

Pursuant to Section 6111.021 of the Ohio Revised Code (ORC), the Director of the Ohio Environmental Protection Agency hereby authorizes the filling of, and the discharge of dredged material into, Category 1 and Category 2 isolated wetlands, in accordance with the conditions specified in Parts I through V of this permit, where the proposed project involves the filling of, or the discharge of dredged material into, Category 1 and Category 2 isolated wetlands of a total of $\frac{1}{2}$ acre or less.

Coverage under this general permit is conditioned upon payment of applicable fees and submittal of a complete Pre-Activity Notice (PAN).

This General Isolated Wetland Permit shall be effective for five (5) years and shall expire at midnight on the expiration date shown above.

Craig W. Butler Director

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

ter Date: 4-10-17 Bv:

State of Ohio - General Isolated Wetland Permit

Page 1 of 6

Part I. COVERAGE UNDER THIS PERMIT

Coverage under this permit is limited to the filling of, and the discharge of dredged material into, Category 1 and Category 2 isolated wetlands, of up to a total of one-half acre or less. The filling of, or discharge of dredged material into, greater than one-half acre of Category 1 or 2 isolated wetlands, or any Category 3 isolated wetlands is specifically not authorized under this general permit.

Part II. NOTIFICATION REQUIREMENTS

- A) Contents of Notification: For coverage under this general permit, a PAN must be submitted to the Ohio EPA and must contain the following information:
 - 1) A completed General Isolated Wetlands Permit Application Form;
 - 2) An acceptable wetland delineation as performed in accordance with the 1987 U.S. Army Corps of Engineers wetland delineation manual and any other procedures and requirements adopted by the U.S. Army Corps of Engineers for delineating wetlands, including a determination from the U.S. Army Corps of Engineers that the wetlands proposed to be covered by this permit are isolated;
 - 3) A completed Ohio Rapid Assessment Method (ORAM 5.0) wetland categorization form for each isolated wetland on the project site. Ohio EPA will make the final assignment of a wetland category in accordance with Rule 3745-1-54 of the Ohio Administrative Code(OAC);
 - 4) A detailed project description;
 - 5) Maps showing project footprint/wetlands, including a U.S. Geological Survey topographic map, and other maps that may be pertinent to assessing the functional level of the isolated wetlands proposed to be covered under the PAN, such as county soil maps and National/Ohio Wetland Inventory maps;
 - 6) Photographs of each isolated wetland proposed to be covered by this permit with a photograph location map showing photograph number and direction the photograph was taken; and

- 7) An acceptable mitigation proposal in accordance with ORC Sections 6111.022(D) and 6111.027 including documentation that mitigation credits have either been purchased or reserved. If the proposal includes In-lieu fee mitigation, an evaluation of other mitigation alternatives must be provided.
- B) Fees: A PAN shall be accompanied by appropriate fees as specified in ORC Section 3745.113.
- C) Timing: Within fifteen (15) business days after the Director's receipt of a PAN, Ohio EPA shall notify the applicant whether the application is complete. If the application is not complete, Ohio EPA shall include in the notice an itemized list of the information or materials necessary to complete the application. If the applicant fails to provide the information or materials that are necessary to complete the application within sixty (60) days after the Director's receipt of the PAN, Ohio EPA may return the application and take no further action on it.

The Director shall notify the applicant within thirty (30) days after the Director's receipt of a complete PAN if the proposed filling of, or the discharge of dredged material into, the isolated wetlands will result in a significant negative impact on state water quality and, therefore, the project is not authorized under this general permit. If the applicant has not received notice that the project is not authorized by this general permit within thirty (30) days after the Director's receipt of a complete PAN, the applicant may move forward with the proposed project in accordance with the conditions stated in this general permit.

Part III. PERMIT CONDITIONS

Projects authorized under this General Isolated Wetland Permit shall be subject to the following conditions:

- A) The project shall be constructed in accordance with the information as set forth in the complete PAN and the conditions of this permit.
- B) Materials used for fill shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt and rubber tires are specifically excluded from use as fill.
- C) Temporary fill shall consist of suitable non-erodible material and shall be stabilized to prevent erosion.

- D) When a project will result in the temporary removal of hydric topsoil from isolated wetlands, the hydric soil shall be separated and placed as the topmost backfill layer when the wetlands are restored.
- E) Wetland narrative and chemical criteria described at Rules 3745-1-51 and 3745-1-52 of the Administrative Code shall be maintained in isolated wetlands wholly or partially avoided.
- F) Except for linear transportation projects, visible signage shall be placed around the delineated boundary of avoided wetlands. The sign shall read as follows,

"This area has been identified as regulated wetlands. No filling may occur without first obtaining all necessary permits. For questions, please contact Ohio EPA at 614-644-2001."

Part IV. MITIGATION

- A) Mitigation, in accordance with ORC Sections 6111.022(D) and 6111.027, is required in order to qualify for coverage under this General Isolated Wetland Permit.
- B) Without the objection of the Director and at the discretion of the applicant, the applicant shall conduct either mitigation at a wetland mitigation bank within the same USACE district as the location of the proposed filling, permittee responsible mitigation, or at the director's discretion, the applicant may purchase credits from an approved In-lieu fee program which serves the impacted watershed.
- C) Mitigation for the filling of, or the discharge of dredged material into, isolated wetlands covered under this permit shall be conducted in accordance with the following ratios:
 - 1) For Category 1 and Category 2 isolated wetlands, other than forested Category 2 isolated wetlands, mitigation located at an approved wetland mitigation bank shall be conducted at a rate of two times the area of isolated wetland that is being impacted;
 - 2) For forested Category 2 isolated wetlands, mitigation located at an approved wetland mitigation bank shall be conducted at a rate of two and one-half times the area of isolated wetland that is being impacted;

- 3) All other mitigation shall be subject to mitigation ratios established in division (F) of rule 3745-1-54 of the OAC.
- D) Mitigation that involves the enhancement or preservation of isolated wetlands shall be calculated and performed in accordance with rule 3745-1-54 of the OAC.
- E) The mitigation site shall be protected long term, and appropriate practicable management measures, including reasonable vegetative buffers, shall be implemented to restrict harmful activities that jeopardize the mitigation.
- F) When mitigation will occur at an approved wetland mitigation bank or In-lieu fee program, mitigation credits must be acquired within 15 days after receipt of the written notice of approval authorizing impacts to isolated wetlands. Proof mitigation credits have been purchased shall be sent to Ohio EPA within 15 days after receipt of approval for coverage under this general permit.
- G) Construction of permittee responsible mitigation not located at an approved bank, shall commence within 15 days after completion of fill activities authorized under this General Permit, and shall be completed prior to termination of coverage of approval under this General Isolated Wetland Permit specified in ORC 6111.022(E).

Part V. LIMITATIONS

An applicant that qualifies for coverage under this general permit shall complete the filling of, and the discharge of dredged material within two (2) years after the end of the thirty-day period following the Director's receipt of a complete PAN. If the applicant does not complete the filling of, and the discharge of dredged material within that two-year period, the applicant shall submit a new PAN in accordance with ORC Section 6111.022. This two-year, project-specific time limitation, should not be confused with the five-year effective period of this General Isolated Wetland Permit. If construction has started but is not complete, and the two-year time limitation has not expired, the permittee will be covered by the General Isolated Wetland Permit that was valid at the time Ohio EPA determined the project met the PAN requirements even if the five-year effective period has expired.

Part VI. FURTHER INFORMATION

Coverage under this general permit does not relieve the applicant from the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.



Mike DeWine, Governor Jon Husted, Lt. Governor Laurie A. Stevenson, Director

Re: Farmstead Permit - Intermediate Approval 401 Wetlands Franklin DSW401196159

February 21, 2019

Jason Wisniewski Grand Communities, LLC 3940 Olympic Blvd, Ste 100 Erlanger, KY 41018

Subject: Grant Authorization under Level One General Isolated Wetlands Permit Farmstead Ohio EPA ID No. 196159

Dear Mr. Wisniewski:

On January 23, 2019, the Ohio Environmental Protection Agency (Ohio EPA) received a pre-activity notice (PAN) for coverage under the OHIO GENERAL PERMIT FOR FILLING CATEGORY 1 AND CATEGORY 2 WETLANDS (general permit). In the PAN, you requested to impact 0.28 acre of non-forested Category 1 wetlands for the purpose of constructing a residential development located in Grove City, Franklin County (39° 50' 07.2", -83° 02' 02.5"). As compensatory mitigation for the aforementioned impacts, you shall purchase 0.6 acre of non-forested wetland mitigation credit from Big Darby Hellbranch Wetlands Mitigation Bank.

Ohio EPA has reviewed your request and has determined that it is complete and meets the PAN requirements for coverage under the general permit.

Please familiarize yourself with the general permit (see link below). It contains requirements and prohibitions with which you must comply. In particular, please be aware of permit condition Part IV.F as it specifically pertains to this project.

http://www.epa.ohio.gov/portals/35/401/2017-2022 General IWP.pdf

Additionally, please be aware that as per ORC §6111.022(E) and Part V of the general permit, the proposed filling of the isolated wetland must be completed within two years

Farmstead Ohio EPA ID No. 196159 Level One General IWP Authorization February 21, 2019

of the date of this letter. If you do not complete the filling within this time, you must submit a new pre-activity notice to Ohio EPA.

You may find a copy of Ohio EPA's rules and laws online at <u>http://www.epa.ohio.gov/dsw/dswrules.aspx</u>. Information regarding Ohio's Section 401 and Isolated Wetlands Permitting programs is also available online at <u>http://www.epa.ohio.gov/dsw/401/permitting.aspx</u>.

If you have any questions, please contact me at 614-644-2327 or via email at <u>Matthew.Lamoreaux@epa.ohio.gov</u>.

Sincerely,

matt Samorang

Matt Lamoreaux Application Coordinator 401/Wetlands/Mitigation Section

ec: Andrea Kilbourne, <u>Andrea.Kilbourne@epa.ohio.gov</u>, Ohio EPA, DSW, Mitigation Coordinator
Jeff Boyles, <u>Jeffrey.Boyles@epa.ohio.gov</u>, 401/Wetlands/Mitigation Section Supervisor, Ohio EPA
Cory Wilson, <u>cory.l.wilson@usace.army.mil</u>, Department of the Army, Huntington District, Corps of Engineers
Vince Messerly, <u>vmesserly@streamandwetlands.org</u>, Stream + Wetlands Foundation
Jamie Vandusen, <u>jvandusen@cecinc.com</u>, Civil and Environmental Consultants, Inc.
DSW File



123 South Broad Street, Suite 238 P.O. Box 369 Lancaster, Ohio 43130 T: (740) 654-4016 F: (740) 689-0890

February 15, 2019

Received by City of Grove City 04-08-20

Mr. Jason Wisniewski Grand Communities, LLC 3940 Olympic Boulevard Suite 100 Erlanger, Kentucky, 41018

RE: Wetlands Mitigation at its Farmstead site located west of Jackson Pike in Jackson Township, Franklin County, Ohio. ACCT NO. BDH-80

Dear Mr. Wisniewski:

The Stream + Wetlands Foundation received on February 8, 2019 an additional deposit payment of \$1,100 (check # check #622938) and an updated purchase agreement for its Farmstead site located west of Jackson Pike in Jackson Township, Franklin County, Ohio.

As per the terms of the Big Darby Hellbranch agreement, this deposit payment reserves for your use 0.6 acres of non-forested wetlands mitigation credits at the Big Darby Hellbranch Wetlands Mitigation Bank for a period of six (6) months. The remaining balance is \$29,700 and is due within 30 days of the permit issuance date. If you do not receive your permit within the 6 month reservation period, additional deposit payments will be required as per the terms of our agreement.

Thank you very much for allowing Stream + Wetlands Foundation to assist you with the wetlands mitigation needs of this project. Should you need further assistance, please feel free to call anytime.

Sincerely,

incent E. M lesserly, P.E. President

Cc: Jamie VanDusen, Civil & Environmental Consultants, Inc., via email

Protect. Enhance. Restore. STREAMANDWETLANDS.ORG



JACKSON PIKE HYDRAULIC CALCULATIONS for: FARMSTEAD

CITY OF GROVE CITY FRANKLIN COUNTY, OHIO

Prepared for:

GRAND COMMUNITIES, LLC.

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC. COLUMBUS, OHIO

CEC PROJECT 174-158





Civil & Environmental Consultants, Inc.

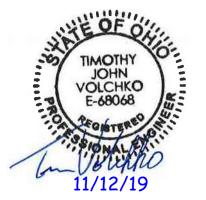


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2.0	CONCLUSION	1

APPENDICES

- Appendix A Proposed Inlet and Culvert Capacity Calculations
- Appendix B Proposed Ditch Calculations
- Appendix C Existing Culvert Capacity Calculations
- Appendix D Post-Developed Tributary Map
- Appendix E Proposed Culvert HydroCAD Reports

1.0 POST-DEVELOPED SUMMARY

The proposed improvements along Jackson Pike (SR 104) for the proposed development Farmstead will include the construction of two (2) new inlets along Jackson Pike (SR 104). There are four (4) existing culverts located along Jackson Pike. Culverts A and B will have new inlets constructed in place of the existing culverts. Culvert C and D will not be disturbed. All four culverts outlet east of Jackson Pike.

For the two proposed inlets, inlet capacity calculations were completed to determine the 25-Year and 100-Year headwater elevations of the inlet. Per ODOT Section 1004.2 the design year storm of the proposed widening was determined to be a 25-Year storm. Proposed flows were calculated using the tributary acreage to each structure using HydroCAD. Culvert A shall have a 36" x 10.8" window with an invert of 717.00 on the west side and a top of casting (TC) of 718.40. Culvert B shall have a 36" x 12" window with an invert of 720.13 on the west side and a TC of 722.3. Culvert A used a combination of ODOT Figure 1102-1 and Hydraflow Express to determine the headwater elevation for the 25-Year and 100-Year headwater elevations. Hydraflow Express was used to determine the max flow rate that the proposed window could convey. This flow rate was then subtracted from the total flow entering the structure. The product of that calculation was then used on ODOT Figure 1102-1 to determine the headwater elevation above the TC. Culvert B was able to convey the entirety of the flow through the window. See Appendix A for the 25-Year and 100-Year calculations.

Culverts C and D were also modeled to determine the headwater depth using Hydraflow Express. Headwater depth was analyzed for both the 25-Year and 100-Year flows. Please see Appendix C.

Ditch calculations were also performed for the proposed work along Jackson Pike. Per ODOT section 1102.3.1 it is specified that the depth of flow shall be determined using a 10-year frequency storm. Q values were determined based on the tributary areas flowing through each section of ditch. The Q values were then utilized in Hydroflow Express AutoCAD to determine the depth at that location. Each location and tributary area are shown in Appendix D.

2.0 CONCLUSION

For the proposed improvements along Jackson Pike (SR 104) CEC has met all requirements set forth by ODOT and the City of Grove City. The proposed stormwater improvements should not pose a threat to property and public safety downstream of the proposed improvements along Jackson Pike.

1

APPENDIX A

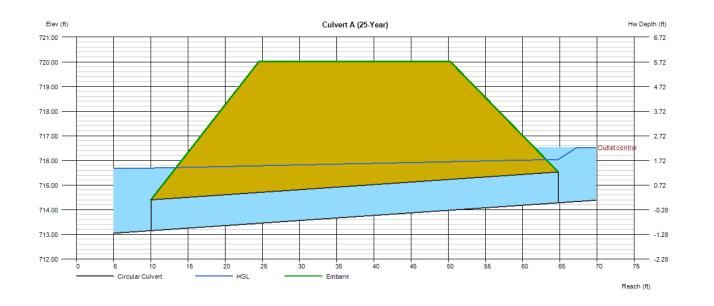
PROPOSED INLET AND CULVERT CAPACITY CALCULATIONS

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Tuesday, Nov 12 2019

Culvert A (25-Year)

Invert Elev Dn (ft)	= 713.15	Calculations	
Pipe Length (ft)	= 54.77	Qmin (cfs)	= 0.00
Slope (%)	= 2.06	Qmax (cfs)	= 5.58
Invert Elev Up (ft)	= 714.28	Tailwater Elev (ft)	= 715.69
Rise (in)	= 15.0		
Shape	= Circular	Highlighted	
Span (in)	= 15.0	Qtotal (cfs)	= 5.58
No. Barrels	= 1	Qpipe (cfs)	= 5.58
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	 Circular Corrugate Metal Pipe 	Veloc Dn (ft/s)	= 4.55
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 4.55
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 715.69
		HGL Up (ft)	= 716.04
Embankment		Hw Elev (ft)	= 716.52
Top Elevation (ft)	= 720.02	Hw/D (ft)	= 1.79
Top Width (ft)	= 25.66	Flow Regime	= Outlet Control
Crest Width (ft)	= 0.00		

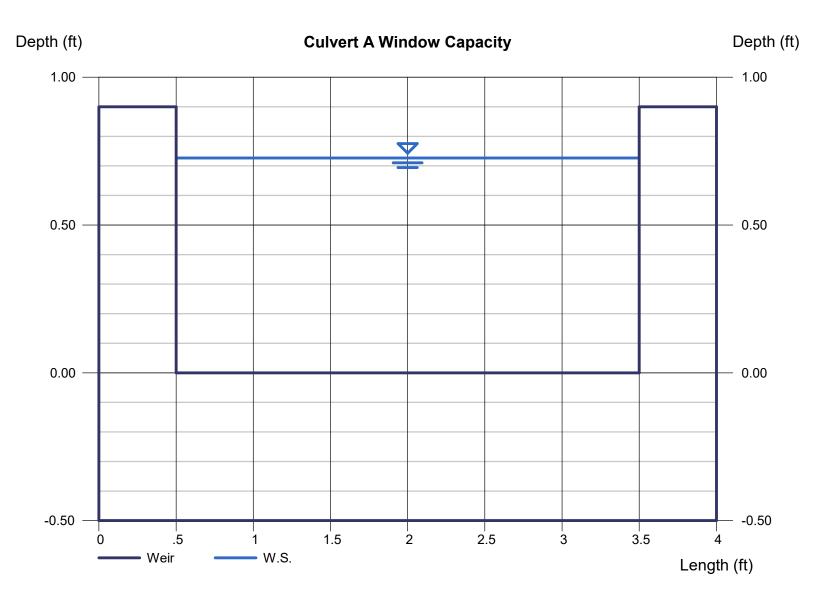


Weir Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Culvert A Window Capacity

Rectangular Weir		Highlighted	
Crest	= Sharp	Depth (ft)	= 0.73
Bottom Length (ft)	= 3.00	Q (cfs)	= 5.580
Total Depth (ft)	= 0.90	Area (sqft)	= 2.18
		Velocity (ft/s)	= 2.56
Calculations		Top Width (ft)	= 3.00
Weir Coeff. Cw	= 3.00		
Compute by:	Known Q		
Known Q (cfs)	= 5.58		

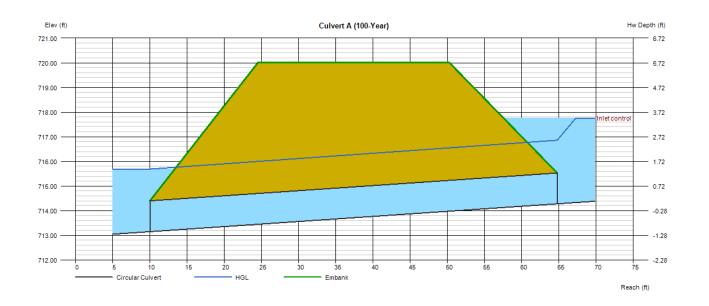


Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Tuesday, Nov 12 2019

Culvert A (100-Year)

Invert Elev Dn (ft)	= 713.15	Calculations	
Pipe Length (ft)	= 54.77	Qmin (cfs)	= 0.00
Slope (%)	= 2.06	Qmax (cfs)	= 10.22
Invert Elev Up (ft)	= 714.28	Tailwater Elev (ft)	= 715.69
Rise (in)	= 15.0		
Shape	= Circular	Highlighted	
Span (in)	= 15.0	Qtotal (cfs)	= 10.22
No. Barrels	= 1	Qpipe (cfs)	= 10.22
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 8.33
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 8.33
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 715.69
		HGL Up (ft)	= 716.86
Embankment		Hw Elev (ft)	= 717.76
Top Elevation (ft)	= 720.02	Hw/D (ft)	= 2.78
Top Width (ft)	= 25.66	Flow Regime	= Inlet Control
Crest Width (ft)	= 0.00		

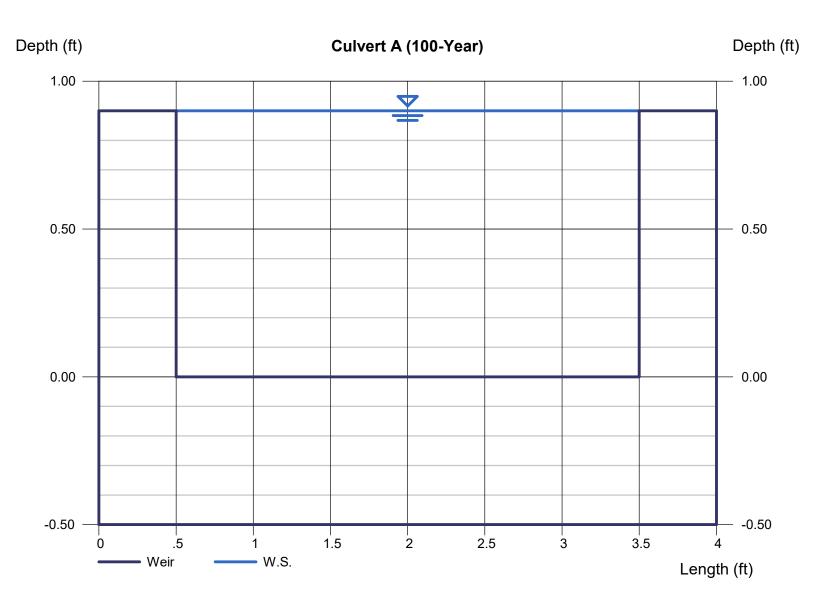


Weir Report

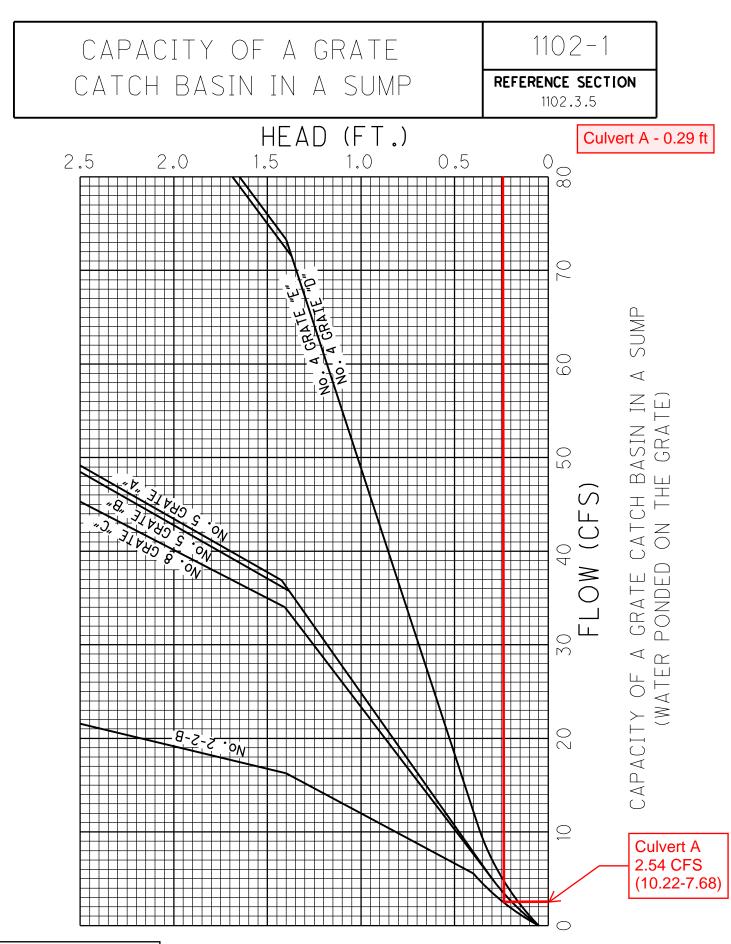
Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Culvert A (100-Year)

Rectangular Weir		Highlighted	
Crest	= Sharp	Depth (ft)	= 0.90
Bottom Length (ft)	= 3.00	Q (cfs)	= 7.684
Total Depth (ft)	= 0.90	Area (sqft)	= 2.70
		Velocity (ft/s)	= 2.85
Calculations		Top Width (ft)	= 3.00
Weir Coeff. Cw	= 3.00		
Compute by:	Q vs Depth		
No. Increments	= 10		



Jackson Pike Inlet Grate Capacity for Proposed conditions Design Year = 100-Year



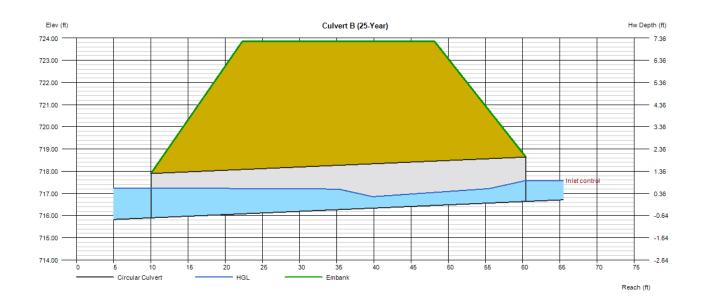
*Basin flood routes to north

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Thursday, Nov 7 2019

Culvert B (25-Year)

Invert Elev Dn (ft)	= 715.90	Calculations	
Pipe Length (ft)	= 50.42	Qmin (cfs)	= 0.00
Slope (%)	= 1.47	Qmax (cfs)	= 3.89
Invert Elev Up (ft)	= 716.64	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 24.0		
Shape	= Circular	Highlighted	
Span (in)	= 24.0	Qtotal (cfs)	= 3.89
No. Barrels	= 1	Qpipe (cfs)	= 3.89
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 1.73
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 4.04
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 717.25
		HGL Up (ft)	= 717.33
Embankment		Hw Elev (ft)	= 717.58
Top Elevation (ft)	= 723.85	Hw/D (ft)	= 0.47
Top Width (ft)	= 25.86	Flow Regime	= Inlet Control
Crest Width (ft)	= 0.00		

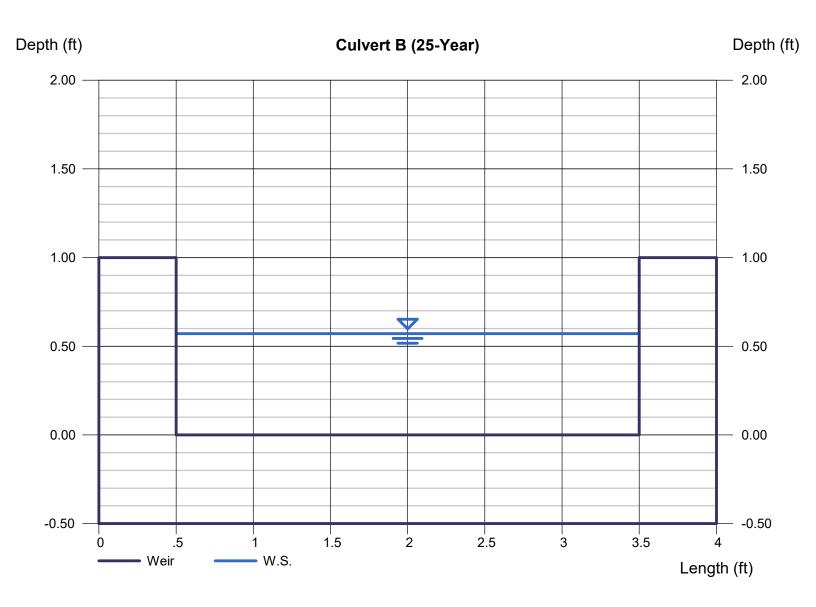


Weir Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Culvert B (25-Year)

Rectangular Weir		Highlighted	
Crest	= Sharp	Depth (ft)	= 0.57
Bottom Length (ft)	= 3.00	Q (cfs)	= 3.890
Total Depth (ft)	= 1.00	Area (sqft)	= 1.71
		Velocity (ft/s)	= 2.27
Calculations		Top Width (ft)	= 3.00
Weir Coeff. Cw	= 3.00		
Compute by:	Known Q		
Known Q (cfs)	= 3.89		

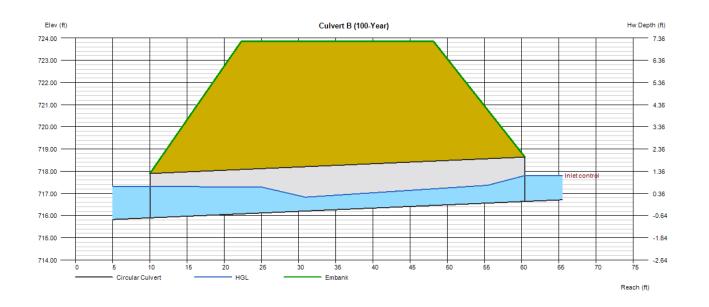


Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Thursday, Nov 7 2019

Culvert B (100-Year)

Invert Elev Dn (ft)	= 715.90	Calculations	
Pipe Length (ft)	= 50.42	Qmin (cfs)	= 0.00
Slope (%)	= 1.47	Qmax (cfs)	= 5.65
Invert Elev Up (ft)	= 716.64	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 24.0		
Shape	= Circular	Highlighted	
Span (in)	= 24.0	Qtotal (cfs)	= 5.65
No. Barrels	= 1	Qpipe (cfs)	= 5.65
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 2.37
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 4.52
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 717.32
		HGL Up (ft)	= 717.48
Embankment		Hw Elev (ft)	= 717.81
Top Elevation (ft)	= 723.85	Hw/D (ft)	= 0.58
Top Width (ft)	= 25.86	Flow Regime	= Inlet Control
Crest Width (ft)	= 0.00		

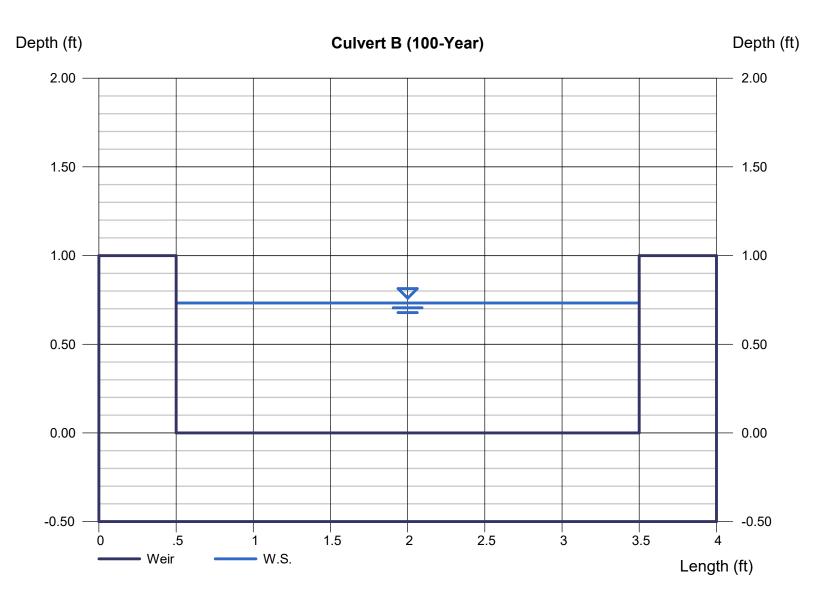


Weir Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Culvert B (100-Year)

Rectangular Weir		Highlighted	
Crest	= Sharp	Depth (ft)	= 0.73
Bottom Length (ft)	= 3.00	Q (cfs)	= 5.650
Total Depth (ft)	= 1.00	Area (sqft)	= 2.20
		Velocity (ft/s)	= 2.57
Calculations		Top Width (ft)	= 3.00
Weir Coeff. Cw	= 3.00		
Compute by:	Known Q		
Known Q (cfs)	= 5.65		



APPENDIX B

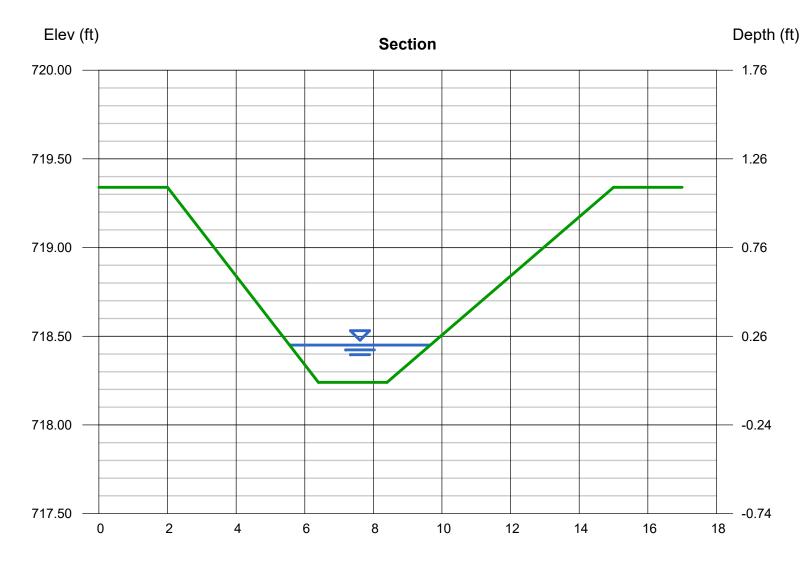
PROPOSED DITCH CALCULATIONS

SHEET JOB # PROJECT	1 174-158 Jackson P	OF ike Ditch Ca				<u>//////</u>			CHECKED:	JTH TJV 8/23/2019	
	Civil & Environmental Consultants, Inc. DITCH CALC DESIGN										
			DRAINA				YEAR STORM	1			
				res)	I	Q		DITCH	DITCH	DELTA	E.O.P.
NUM	TYPE	STATION	∆ AREA	C	(in/hr)	(cfs)		INVERT	DEPTH	(ft)	ELEV
101+20	DITCH	0.00	0.18	0.45	6.78			718.24	0.21	1.40	719.85
						0.55					
102+90	DITCH	0.00	1.13	0.45	6.78			717.86	0.50	1.43	719.79
						3.45					
105+25	DITCH	0.00	0.82	0.45	6.78			719.74	0.48	1.01	721.23
						2.50					
112+60	DITCH	0.00	0.79	0.45	6.78			720.24	0.47	2.67	723.38
						2.41					
112+80	DITCH	0.00	0.19	0.45	6.78			720.70	0.24	2.57	723.51
						0.58					
117+00	DITCH	0.00	0.55	0.45	6.78			720.59	0.40	1.51	722.50
						1.68					

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

STA 101+20

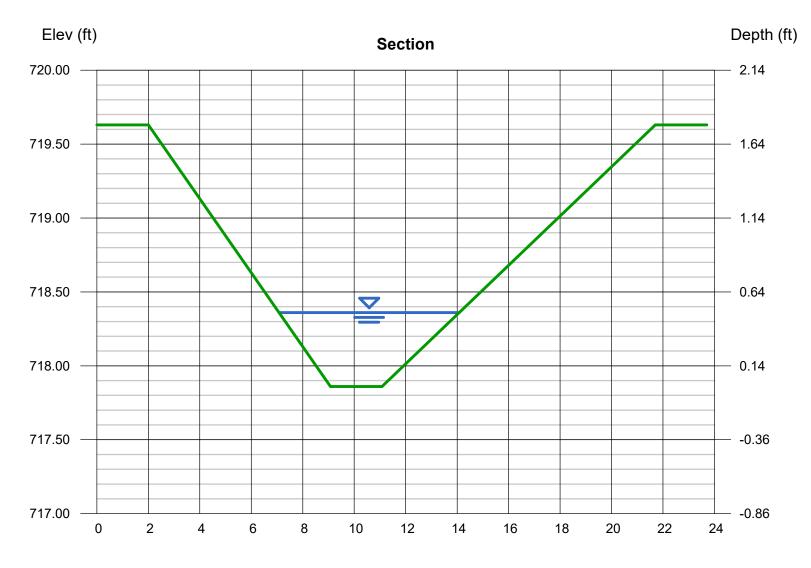
Trapezoidal		Highlighted	
Bottom Width (ft)	= 2.00	Depth (ft)	= 0.21
Side Slopes (z:1)	= 4.00, 6.00	Q (cfs)	= 0.550
Total Depth (ft)	= 1.10	Area (sqft)	= 0.64
Invert Elev (ft)	= 718.24	Velocity (ft/s)	= 0.86
Slope (%)	= 0.65	Wetted Perim (ft)	= 4.14
N-Value	= 0.040	Crit Depth, Yc (ft)	= 0.12
		Top Width (ft)	= 4.10
Calculations		EGL (ft)	= 0.22
Compute by:	Known Q		
Known Q (cfs)	= 0.55		



Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

STA 102+90

Trapezoidal		Highlighted	
Bottom Width (ft)	= 2.00	Depth (ft)	= 0.50
Side Slopes (z:1)	= 4.00, 6.00	Q (cfs)	= 3.450
Total Depth (ft)	= 1.77	Area (sqft)	= 2.25
Invert Elev (ft)	= 717.86	Velocity (ft/s)	= 1.53
Slope (%)	= 0.85	Wetted Perim (ft)	= 7.10
N-Value	= 0.040	Crit Depth, Yc (ft)	= 0.35
		Top Width (ft)	= 7.00
Calculations		EGL (ft)	= 0.54
Compute by:	Known Q		
Known Q (cfs)	= 3.45		



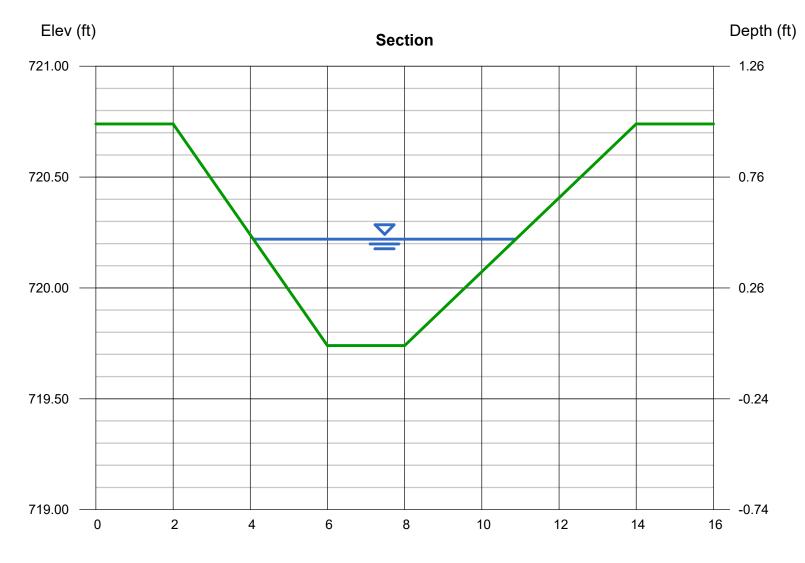
Reach (ft)

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Thursday, Jun 20 2019

STA 105+25

Trapezoidal		Highlighted	
Bottom Width (ft)	= 2.00	Depth (ft)	= 0.48
Side Slopes (z:1)	= 4.00, 6.00	Q (cfs)	= 2.500
Total Depth (ft)	= 1.00	Area (sqft)	= 2.11
Invert Elev (ft)	= 719.74	Velocity (ft/s)	= 1.18
Slope (%)	= 0.50	Wetted Perim (ft)	= 6.90
N-Value	= 0.040	Crit Depth, Yc (ft)	= 0.29
		Top Width (ft)	= 6.80
Calculations		EGL (ft)	= 0.50
Compute by:	Known Q		
Known Q (cfs)	= 2.50		

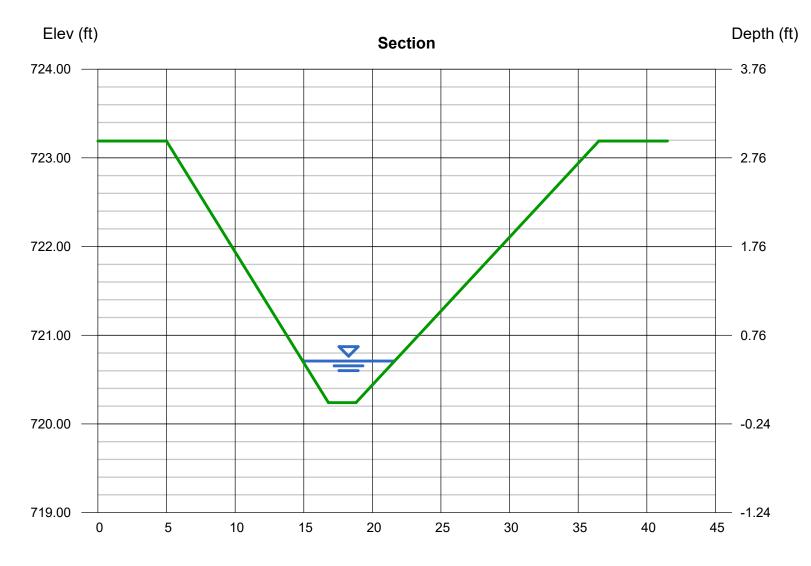


Reach (ft)

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

STA 112+60

Highlighted	
Depth (ft)	= 0.47
Q (cfs)	= 2.410
Area (sqft)	= 2.04
Velocity (ft/s)	= 1.18
Wetted Perim (ft)	= 6.80
Crit Depth, Yc (ft)	= 0.29
Top Width (ft)	= 6.70
EGL (ft)	= 0.49
	Depth (ft) Q (cfs) Area (sqft) Velocity (ft/s) Wetted Perim (ft) Crit Depth, Yc (ft) Top Width (ft)

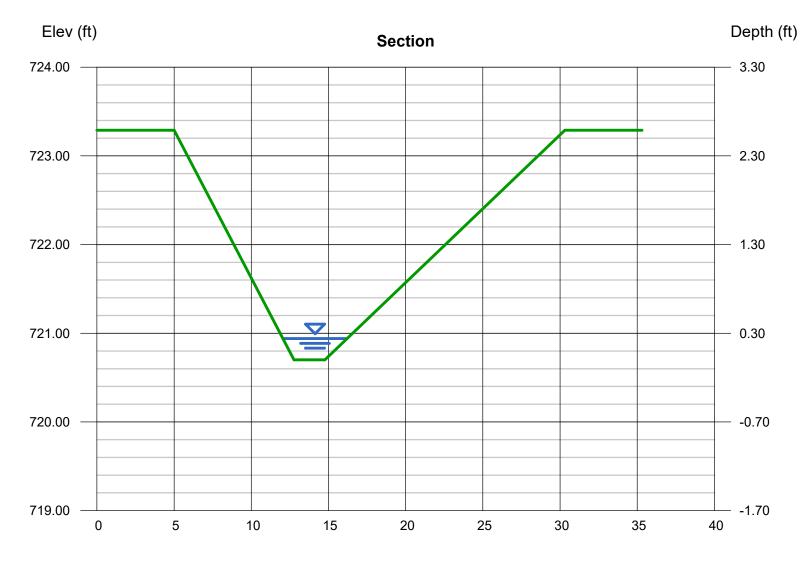


Reach (ft)

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

STA 112+80

Trapezoidal		Highlighted	
Bottom Width (ft)	= 2.00	Depth (ft)	= 0.24
Side Slopes (z:1)	= 3.00, 6.00	Q (cfs)	= 0.580
Total Depth (ft)	= 2.59	Area (sqft)	= 0.74
Invert Elev (ft)	= 720.70	Velocity (ft/s)	= 0.78
Slope (%)	= 0.50	Wetted Perim (ft)	= 4.22
N-Value	= 0.040	Crit Depth, Yc (ft)	= 0.13
		Top Width (ft)	= 4.16
Calculations		EGL (ft)	= 0.25
Compute by:	Known Q		
Known Q (cfs)	= 0.58		

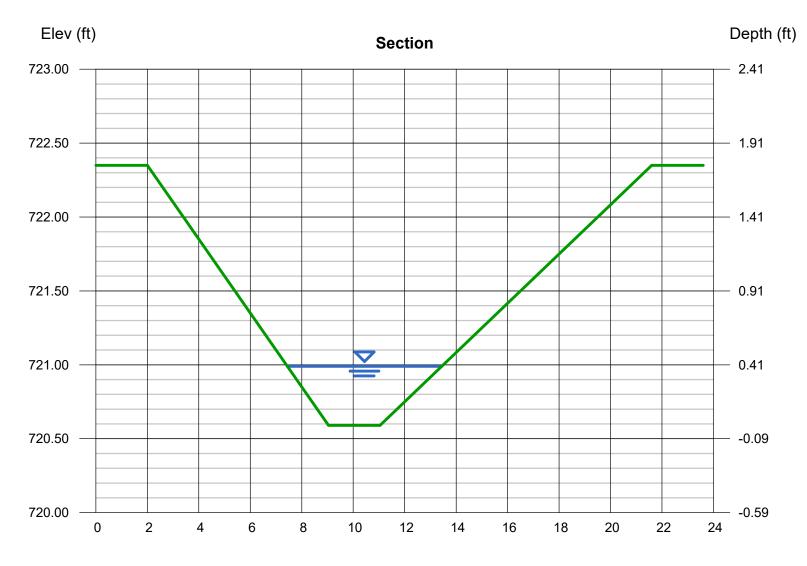


Reach (ft)

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

STA 117+00

Trapezoidal		Highlighted	
Bottom Width (ft)	= 2.00	Depth (ft)	= 0.40
Side Slopes (z:1)	= 4.00, 6.00	Q (cfs)	= 1.680
Total Depth (ft)	= 1.76	Area (sqft)	= 1.60
Invert Elev (ft)	= 720.59	Velocity (ft/s)	= 1.05
Slope (%)	= 0.50	Wetted Perim (ft)	= 6.08
N-Value	= 0.040	Crit Depth, Yc (ft)	= 0.23
		Top Width (ft)	= 6.00
Calculations		EGL (ft)	= 0.42
Compute by:	Known Q		
Known Q (cfs)	= 1.68		



Reach (ft)

APPENDIX C

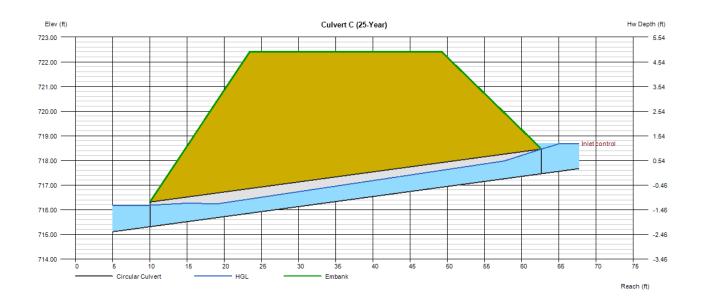
EXISTING CULVERT CAPACITY CALCULATIONS

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Thursday, Nov 7 2019

Culvert C (25-Year)

Invert Elev Dn (ft)	= 715.31	Calculations	
Pipe Length (ft)	= 52.65	Qmin (cfs)	= 0.00
Slope (%)	= 4.08	Qmax (cfs)	= 3.01
Invert Elev Up (ft)	= 717.46	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 12.0		
Shape	= Circular	Highlighted	
Span (in)	= 12.0	Qtotal (cfs)	= 3.01
No. Barrels	= 1	Qpipe (cfs)	= 3.01
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	 Circular Corrugate Metal Pipe 	Veloc Dn (ft/s)	= 4.14
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 4.81
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 716.18
		HGL Up (ft)	= 718.20
Embankment		Hw Elev (ft)	= 718.69
Top Elevation (ft)	= 722.40	Hw/D (ft)	= 1.23
Top Width (ft)	= 25.86	Flow Regime	= Inlet Control
Crest Width (ft)	= 0.00		

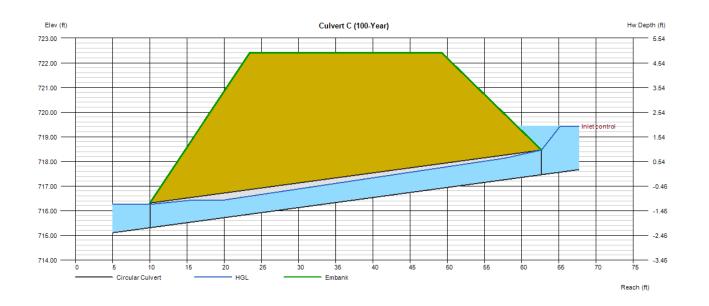


Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Thursday, Nov 7 2019

Culvert C (100-Year)

= 715.31	Calculations	
= 52.65		= 0.00
= 4.08	Qmax (cfs)	= 4.59
= 717.46	()	= (dc+D)/2
= 12.0	(),	()
= Circular	Highlighted	
= 12.0		= 4.59
= 1	()	= 4.59
= 0.012	Qovertop (cfs)	= 0.00
= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 5.97
= Headwall	Veloc Up (ft/s)	= 6.21
= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 716.26
	HGL Up (ft)	= 718.35
	Hw Elev (ft)	= 719.42
= 722.40	Hw/D (ft)	= 1.96
= 25.86	Flow Regime	= Inlet Control
= 0.00	-	
	= 4.08 = 717.46 = 12.0 = Circular = 12.0 = 1 = 0.012 = Circular Corrugate Metal Pipe = Headwall = 0.0078, 2, 0.0379, 0.69, 0.5	= 52.65 Qmin (cfs) = 4.08 Qmax (cfs) = 717.46 Tailwater Elev (ft) = 12.0 Highlighted = 12.0 Qtotal (cfs) = 12.0 Qpipe (cfs) = 0.012 Qovertop (cfs) = Circular Corrugate Metal Pipe Veloc Dn (ft/s) = Headwall Veloc Up (ft/s) = 0.0078, 2, 0.0379, 0.69, 0.5 HGL Dn (ft) HGL Up (ft) Hw Elev (ft) = 722.40 Hw/D (ft) = 25.86 Flow Regime

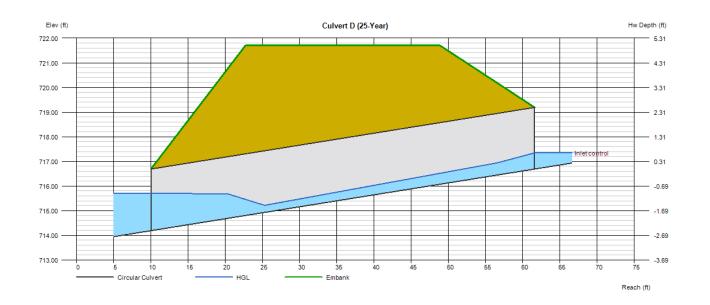


Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Thursday, Nov 7 2019

Culvert D (25-Year)

Invert Elev Dn (ft)	= 714.19	Calculations	
Pipe Length (ft)	= 51.59	Qmin (cfs)	= 0.00
Slope (%)	= 4.85	Qmax (cfs)	= 2.61
Invert Elev Up (ft)	= 716.69	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 30.0		
Shape	= Circular	Highlighted	
Span (in)	= 30.0	Qtotal (cfs)	= 2.61
No. Barrels	= 1	Qpipe (cfs)	= 2.61
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 0.84
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 3.45
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 715.70
		HGL Up (ft)	= 717.22
Embankment		Hw Elev (ft)	= 717.35
Top Elevation (ft)	= 721.70	Hw/D (ft)	= 0.26
Top Width (ft)	= 26.18	Flow Regime	= Inlet Control
Crest Width (ft)	= 0.00		

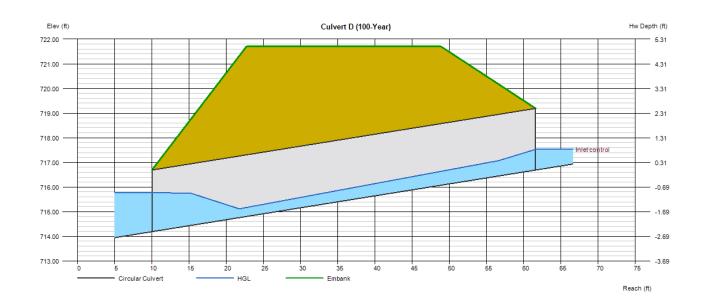


Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Thursday, Nov 7 2019

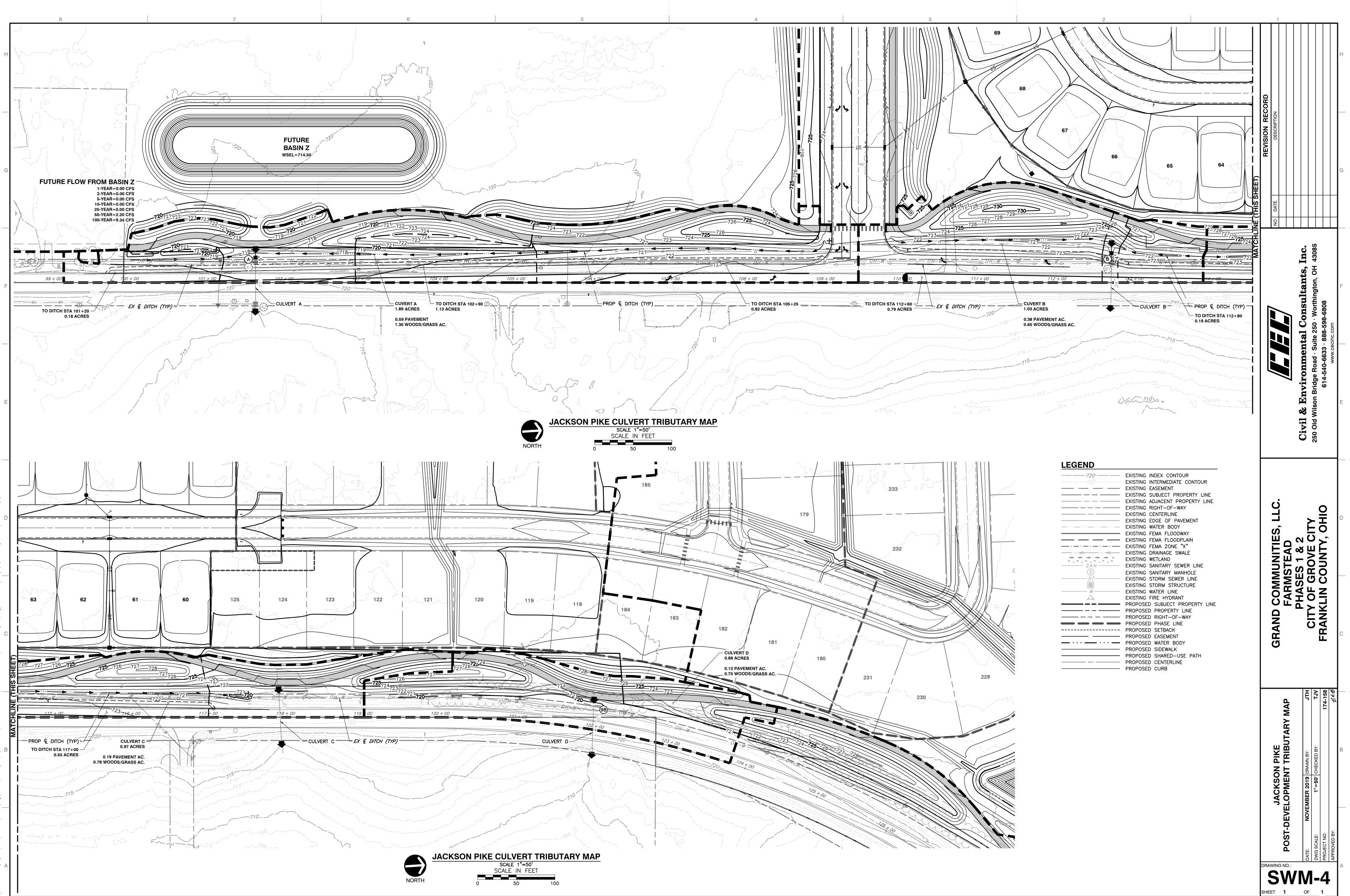
Culvert D (100-Year)

Invert Elev Dn (ft)	= 714.19	Calculations	
Pipe Length (ft)	= 51.59	Qmin (cfs)	= 0.00
Slope (%)	= 4.85	Qmax (cfs)	= 4.03
Invert Elev Up (ft)	= 716.69	Tailwater Elev (ft)	= (dc+D)/2
Rise (in)	= 30.0		
Shape	= Circular	Highlighted	
Span (in)	= 30.0	Qtotal (cfs)	= 4.03
No. Barrels	= 1	Qpipe (cfs)	= 4.03
n-Value	= 0.012	Qovertop (cfs)	= 0.00
Culvert Type	 Circular Corrugate Metal Pipe 	Veloc Dn (ft/s)	= 1.23
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 3.89
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 715.77
		HGL Up (ft)	= 717.35
Embankment		Hw Elev (ft)	= 717.53
Top Elevation (ft)	= 721.70	Hw/D (ft)	= 0.34
Top Width (ft)	= 26.18	Flow Regime	= Inlet Control
Crest Width (ft)	= 0.00		



APPENDIX D

POST-DEVELOPED TRIBUTARY MAP



ivr-columbus/projects/2017/174-158/-CADD/Dwg/Exhibits/Tributary Maps/Phase 1&2/174158-SWM4-Jackson Pike Post Development Tributary Map.dwgfCULVERT TRIB} LS:(11/6/2019 - Jhammond) - LP: 11/6/2019 1

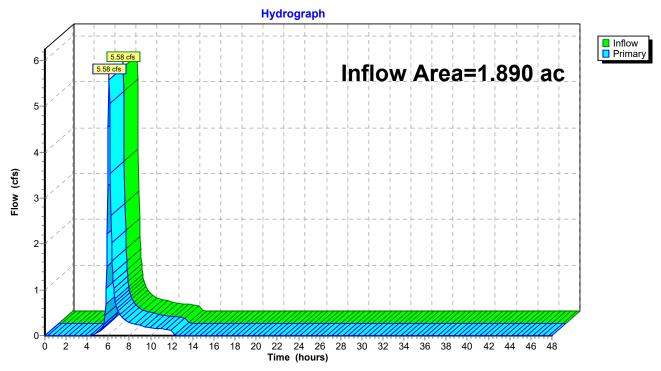
APPENDIX E

PROPOSED CULVERT HYDROCAD REPORTS

Summary for Link PCU-A: Culvert A (Outfall 2)

Inflow Area	a =	1.890 ac, 3 ⁻	1.22% Impervious,	Inflow Depth = 1	.94" for 25-Year event
Inflow	=	5.58 cfs @	6.08 hrs, Volume	= 0.306 af	-
Primary	=	5.58 cfs @	6.08 hrs, Volume	= 0.306 af	f, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

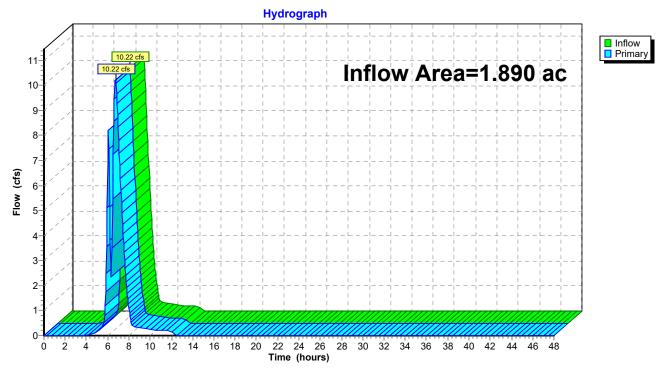


Link PCU-A: Culvert A (Outfall 2)

Summary for Link PCU-A: Culvert A (Outfall 2)

Inflow Area	a =	1.890 ac, 3	1.22% Impervious,	Inflow Depth = 7.23'	for 100-Year event
Inflow	=	10.22 cfs @	6.73 hrs, Volume=	= 1.139 af	
Primary	=	10.22 cfs @	6.73 hrs, Volume=	= 1.139 af, At	tten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs



Link PCU-A: Culvert A (Outfall 2)

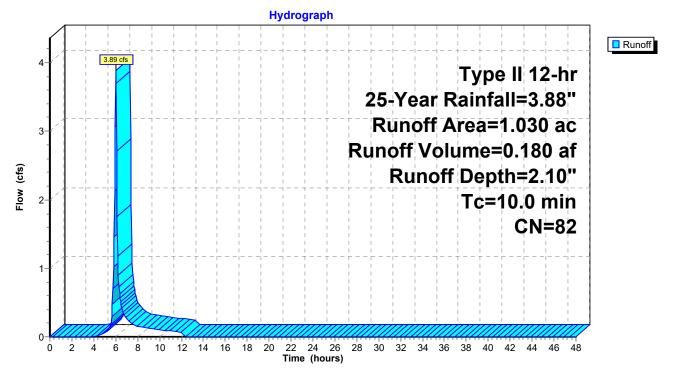
Summary for Subcatchment CU-B: Culvert B (Outfall 1)

Runoff = 3.89 cfs @ 6.02 hrs, Volume= 0.180 af, Depth= 2.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 12-hr 25-Year Rainfall=3.88"

Area	(ac)	CN	Desc	cription				
0.	.650	72	Woo	ds/grass o	omb., Goo	d, HSG C		
0.	.380	98	Pave	ed parking	, HSG C			
1.	.030	82	Weig	ghted Aver	age			
0.	.650		63.11% Pervious Area					
0.	.380		36.8	9% Imperv	∕ious Area			
Tc (min)	Leng (fee		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
10.0						Direct Entry,		
				• • •				

Subcatchment CU-B: Culvert B (Outfall 1)



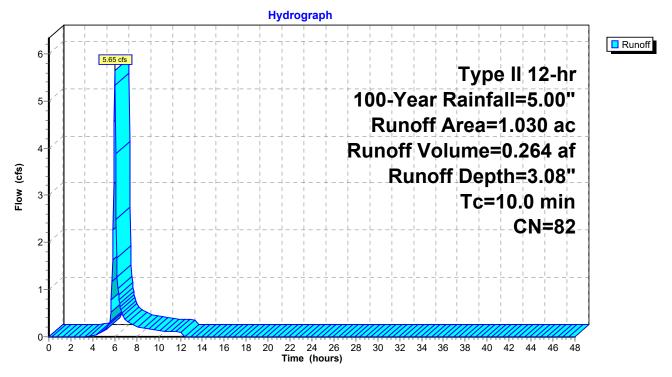
Summary for Subcatchment CU-B: Culvert B (Outfall 1)

Runoff = 5.65 cfs @ 6.01 hrs, Volume= 0.264 af, Depth= 3.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 12-hr 100-Year Rainfall=5.00"

Area	(ac)	CN	Desc	cription		
0	.650	72	Woo	ds/grass c	omb., Goo	d, HSG C
0	.380	98	Pave	ed parking	, HSG C	
1	.030	82	Weig	ghted Aver	age	
0	.650		63.1	1% Pervio	us Area	
0	.380		36.8	9% Imperv	∕ious Area	
-		a	0		0	
Tc	Leng		Slope	Velocity	Capacity	Description
(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
10.0						Direct Entry,

Subcatchment CU-B: Culvert B (Outfall 1)

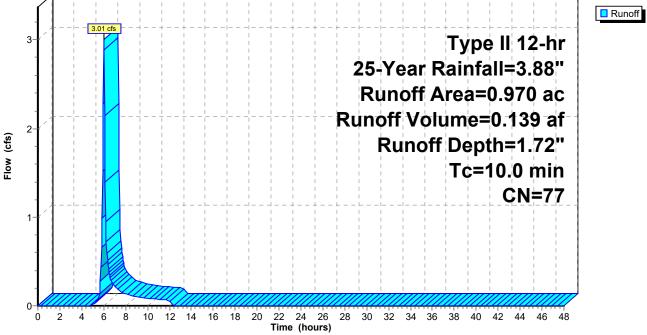


Summary for Subcatchment CU-C: Culvert C (Outfall 5A)

Runoff = 3.01 cfs @ 6.02 hrs, Volume= 0.139 af, Depth= 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 12-hr 25-Year Rainfall=3.88"

Area (ac)	CN	Description						
0.780	72	Woods/grass comb., Good, HSG C						
0.190	98	Paved parking, HSG C						
0.970 77 Weighted Average								
0.780	0.780 80.41% Pervious Area							
0.190 19.59% Impervious Area								
Tc Leng (min) (fee		Slope Velocity (ft/ft) (ft/sec)	Capacity (cfs)	Description				
10.0 Direct Entry,								
Subcatchment CU-C: Culvert C (Outfall 5A) Hydrograph								
				· · · · · · · · · · · · · · · · · · ·				Runoff

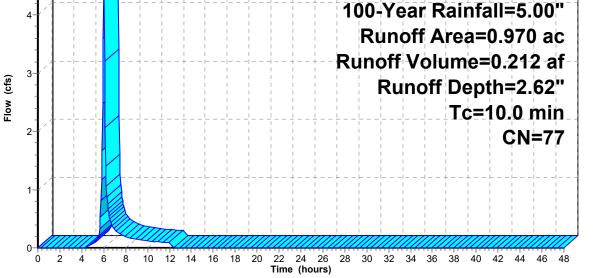


Summary for Subcatchment CU-C: Culvert C (Outfall 5A)

Runoff = 4.59 cfs @ 6.02 hrs, Volume= 0.212 af, Depth= 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 12-hr 100-Year Rainfall=5.00"

Area (ac)	CN	Desc	cription				
0.780	72			comb., Goo	d, HSG C		
0.190	98	Pave	ed parking	, HSG C			
0.970	77		ghted Aver	•			
0.780			1% Pervio				
0.190		19.5	9% Imper	vious Area			
Tc Leng (min) (fe	gth et)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description		
10.0		(1011)	(1000)	(010)	Direct Entry,		
			• • •				
			Subcato	chment C Hydro	U-C: Culvert C (C	Dutfall 5A)	
5-	 		Subcato		•	Dutfall 5A)	Runoff
5-	4.59 c		Subcato		•	Dutfall 5A) Type II 12-hr	Runoff
5	 - 4.59 c - - -		Subcato		graph	- 	Runoff
			Subcato		graph 100-Yeal	Type II 12-hr	Runoff
			Subcato		^{graph} 100-Yeal Runofi	Type II 12-hr Rainfall=5.00"	Runoff



Summary for Subcatchment CU-D: Culvert D (Outfall 5B)

Runoff = 2.61 cfs @ 6.02 hrs, Volume= 0.121 af, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 12-hr 25-Year Rainfall=3.88"

Area (ac) CN Description		
	s comb., Good, HSG C	
0.130 98 Paved parking		
0.880 76 Weighted Ave		
0.750 85.23% Pervi		
0.130 14.77% Imper	ervious Area	
Tc Length Slope Velocity (min) (feet) (ft/ft) (ft/sec)		
10.0	Direct Entry,	
Subcat	tchment CU-D: Culvert D (Outfall 5B)	
	Hydrograph	
Element of the second s	Type II 12-hr 25-Year Rainfall=3.88" Runoff Area=0.880 ac Runoff Volume=0.121 af Runoff Depth=1.65" Tc=10.0 min CN=76	Runoff

6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 Time (hours)

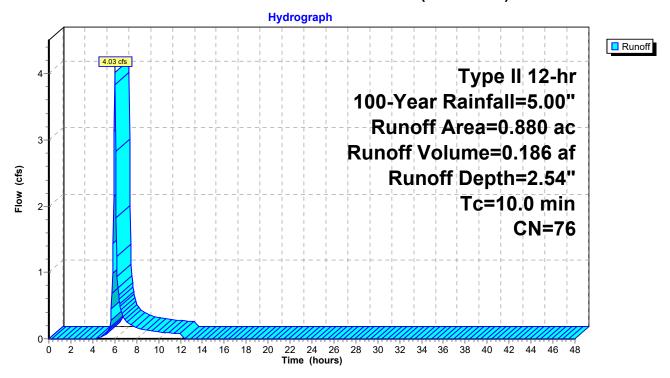
4

Summary for Subcatchment CU-D: Culvert D (Outfall 5B)

Runoff = 4.03 cfs @ 6.02 hrs, Volume= 0.186 af, Depth= 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type II 12-hr 100-Year Rainfall=5.00"

Area ((ac)	CN	Desc	cription		
0.7	750	72	Woo	ds/grass o	omb., Goo	d, HSG C
0.2	130	98	Pave	ed parking	, HSG C	
0.0	880	76	Weig	phted Aver	age	
0.7	750		85.2	3% Pervio	us Area	
0.1	130		14.7	7% Imperv	/ious Area	
Tc (min)	Lengt (fee		Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0						Direct Entry,
				Subcato	hment C	U-D: Culvert D (Outfall 5B)



FINAL DEVELOPMENT PLAN FOR FARMSTEAD - SUB AREA H **CITY OF GROVE CITY, FRANKLIN COUNTY, OHIO**



	DI	RAWING INDEX
NUMBER	DESCRIPTION	TITLE
1	C000	COVER SHEET
2	C001	TYPICAL SECTIONS & DETAILS
3	C100	EXISTING CONDITIONS AND DEMOLITION PLAN
4	C200	SITE PLAN
5	C201	FIRE TRUCK ROUTE
6	C300	GRADING & UTILITY PLAN
7	C700	LANDSCAPE PLAN
8	C701	LANDSCAPE DETAILS
9	C702	TYPICAL SINGLE HOME LANDSCAPE PLAN
10	C703	PHOTOMETRICS PLAN
11	C800	MISCELLANEOUS DETAILS

Received by

City of Grove City

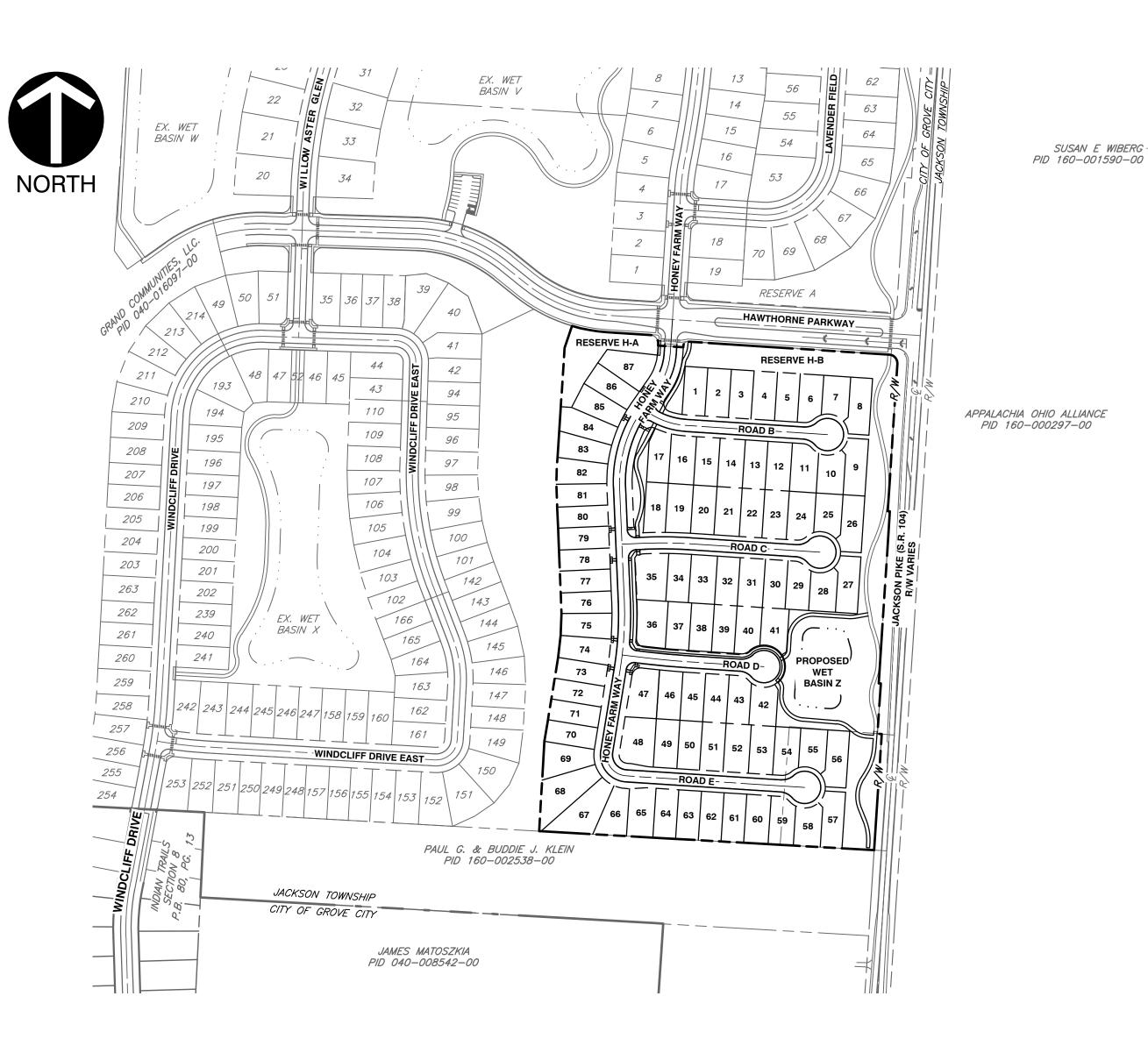
04-24-20

CITY OF GROVE CITY STANDARD CONSTRUCTION DRAWINGS						
C-GC-32	C-GC-80					
C-GC-43A	C-GC-83					
C-GC-43DW	C-GC-84					
C-GC-46A	C-GC-90 (PAVEMENT COMPOSITION ONLY)					
C-GC-57A	C-GC-95C					
C-GC-65	C-GC-98					
THE STANDARD DRAWINGS AND SUP CONSIDERED A PART OF THESE DRA	PLEMENTAL SPECIFICATIONS LISTED ABOVE SHALL BE AWINGS.					

SITE STATISTICS

TOTAL ACREAGE: 21.52 AC. NUMBER OF LOTS: 87 LOTS PROPOSED R/W AREA: 3.82 AC. ONSITE OPEN SPACE: 4.11 AC. AVERAGE LOT SIZE: 0.154 AC. 4.04 LOTS/AC. GROSS SITE DENSITY: FRONT YARD SETBACK: 25' MIN.* AND 35' MIN.* REAR YARD SETBACK: 20' SIDE YARD SETBACK: 5' MIN., 10' TOTAL MINIMUM LOT AREA: 0.138 AC (6,000 SF) MINIMUM LOT DEPTH: 115' MIN.

CORNER LOTS SHALL HAVE A SIDE SETBACK ALONG THE ADJOINING RIGHT-OF-WAY ONE HALF (½) THE MINIMUM FRONT SETBACK.



REFERENCES

EXISTING TOPOGRAPHY SHOWN OBTAINED FROM LIDAR PERFORMED BY CEC FEBRUARY 2018 AND PROPOSED MASS EXCAVATION GRADING FOR THE FARMSTEAD DEVELOPMENT.

EXISTING UTILITIES SHOWN ARE FROM THE PROPOSED FARMSTEAD DEVELOPMENT AND RECORD PLANS PROVIDED BY THE CITY OF GROVE CITY AND SURVEY COMPLETED BY CEC IN FEBRUARY 2018 AND JANUARY 2019.

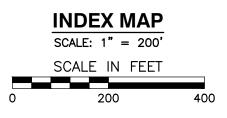
EXISTING BASE MAP INFORMATION OBTAINED FROM FRANKLIN COUNTY AUDITORS ACCESSED NOVEMBER 2017, AND SURVEY COMPLETED BY CEC IN FEBRUARY 2018.

SOILS INFORMATION IS PER USDA WEB SOIL SURVEY ACCESSED NOVEMBER 2017.

WETLAND, STREAMS AND DRAINAGE DELINEATION COMPLETED BY CEC JANUARY, 2018.

APRIL 2020

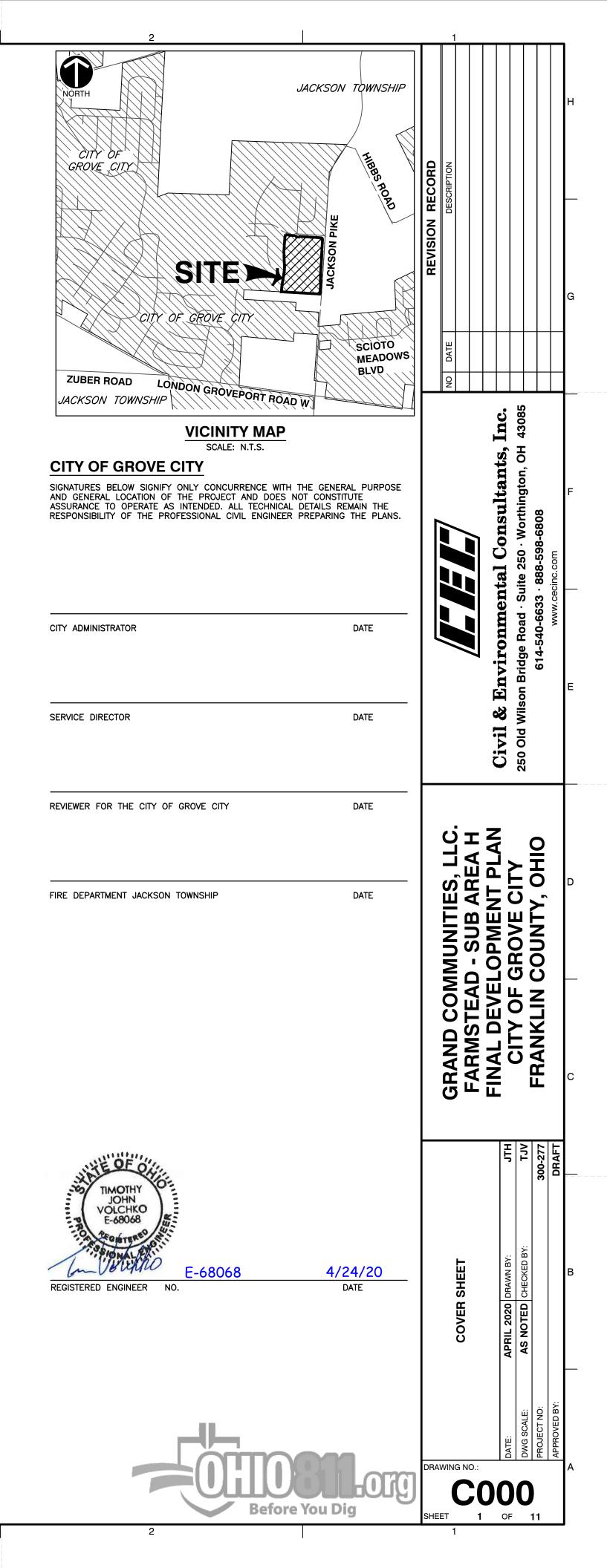
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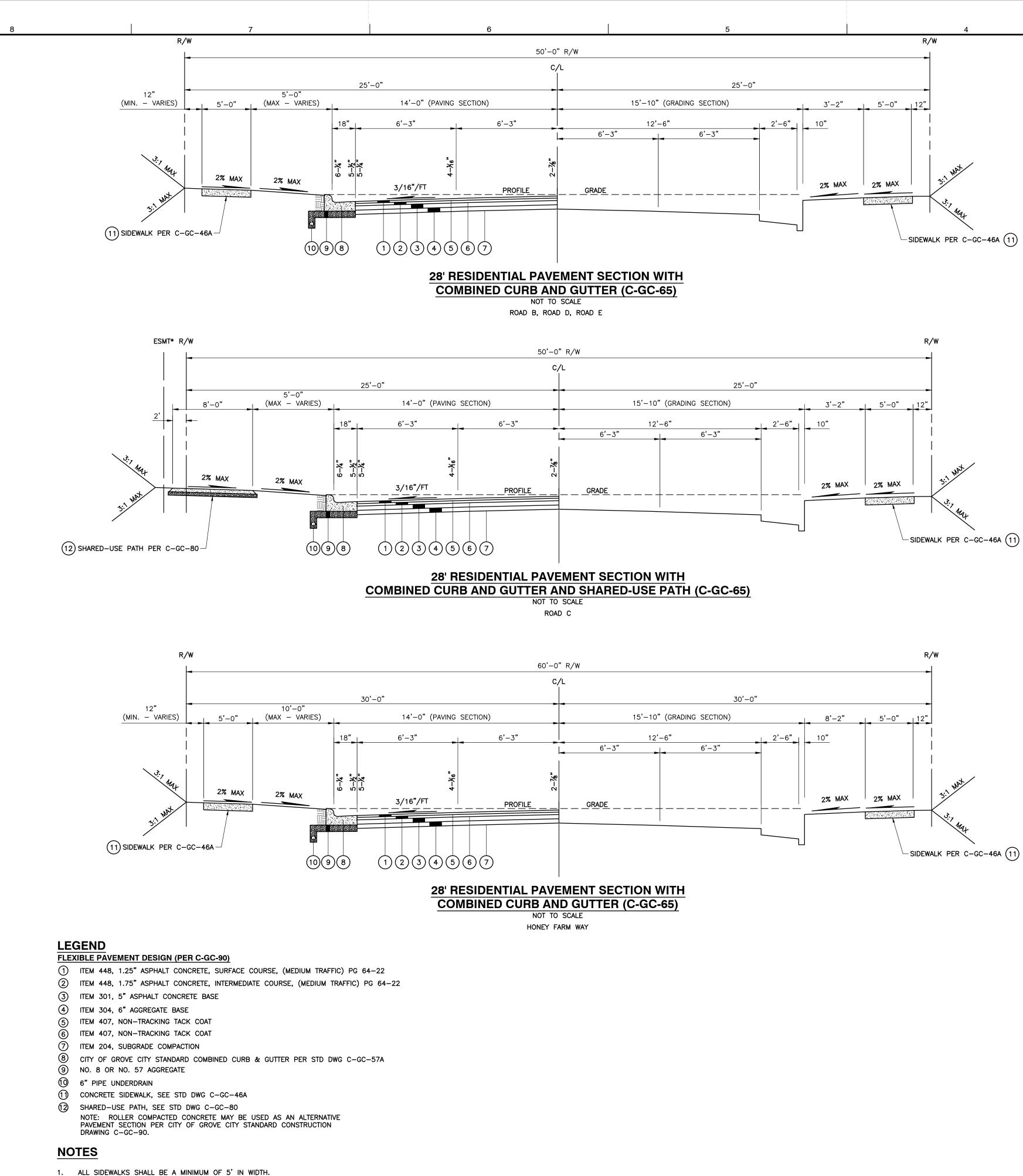


ENGINEER/SURVEYOR CIVIL & ENVIRONMENTAL CONSULTANTS, INC. 250 OLD WILSON BRIDGE ROAD, SUITE 250 WORTHINGTON, OHIO 43085 CONTACT: TIM VOLCHKO PHONE: (614) 540-6633 EMAIL: TVOLCHKO@CECINC.COM

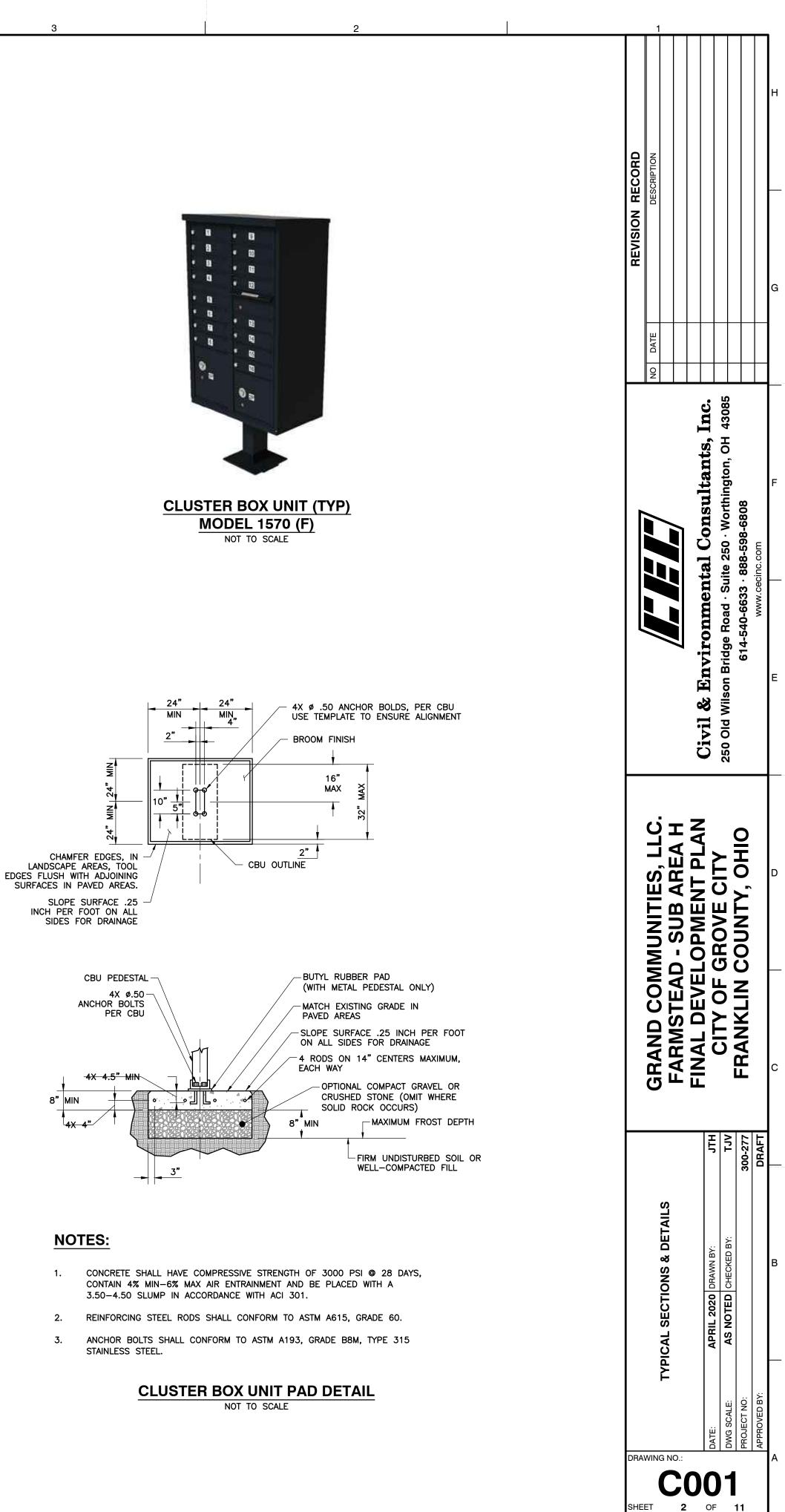
OWNER/DEVELOPER

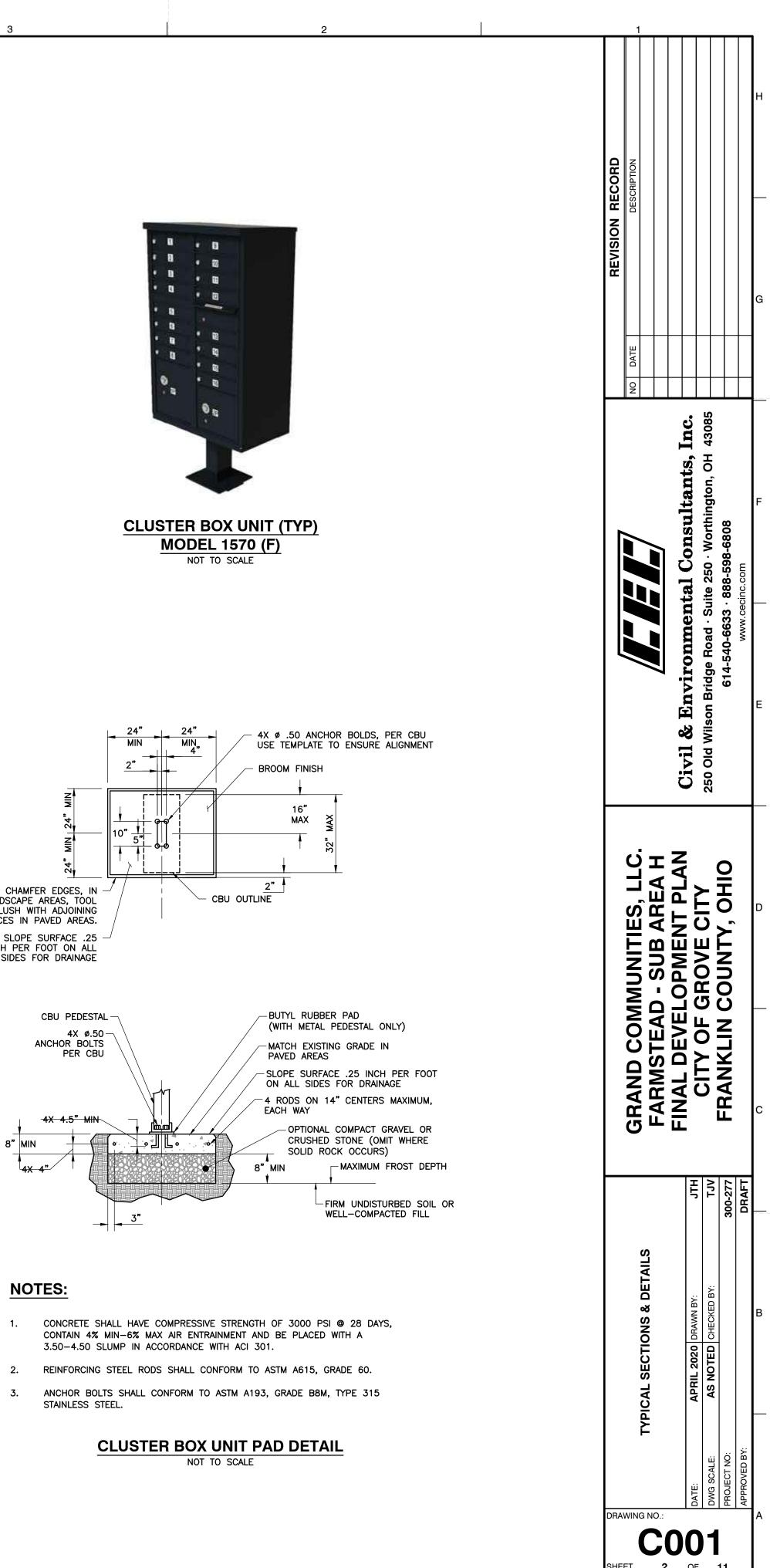
GRAND COMMUNITIES, LLC. 3940 OLYMPIC BOULEVARD, SUITE 100 ERLANGER, KENTUCKY 41019 CONTACT: MICHAEL KADY PHONE: (859) 344-2708 EMAIL: MKADY@FISCHERHOMES.COM

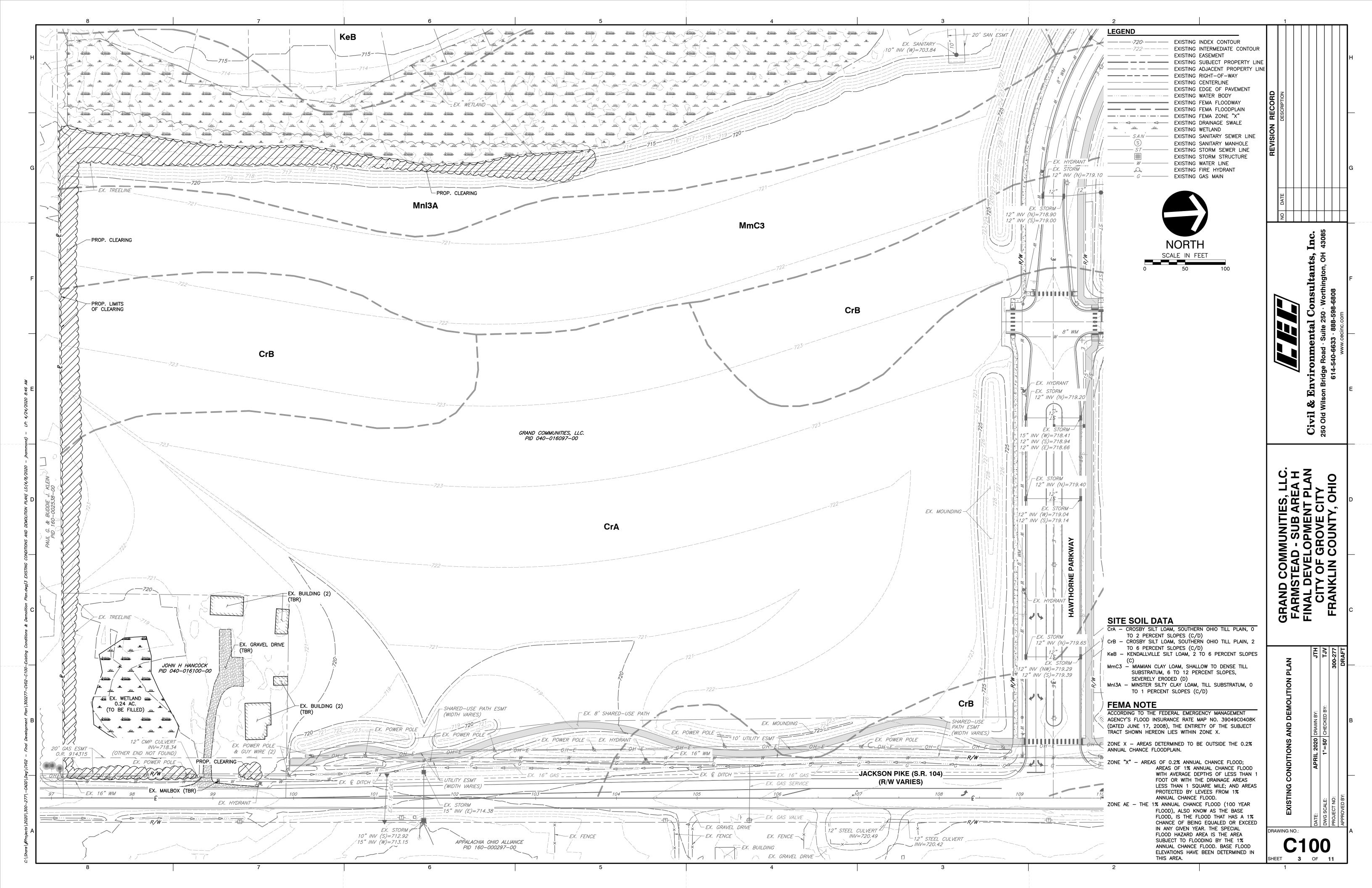


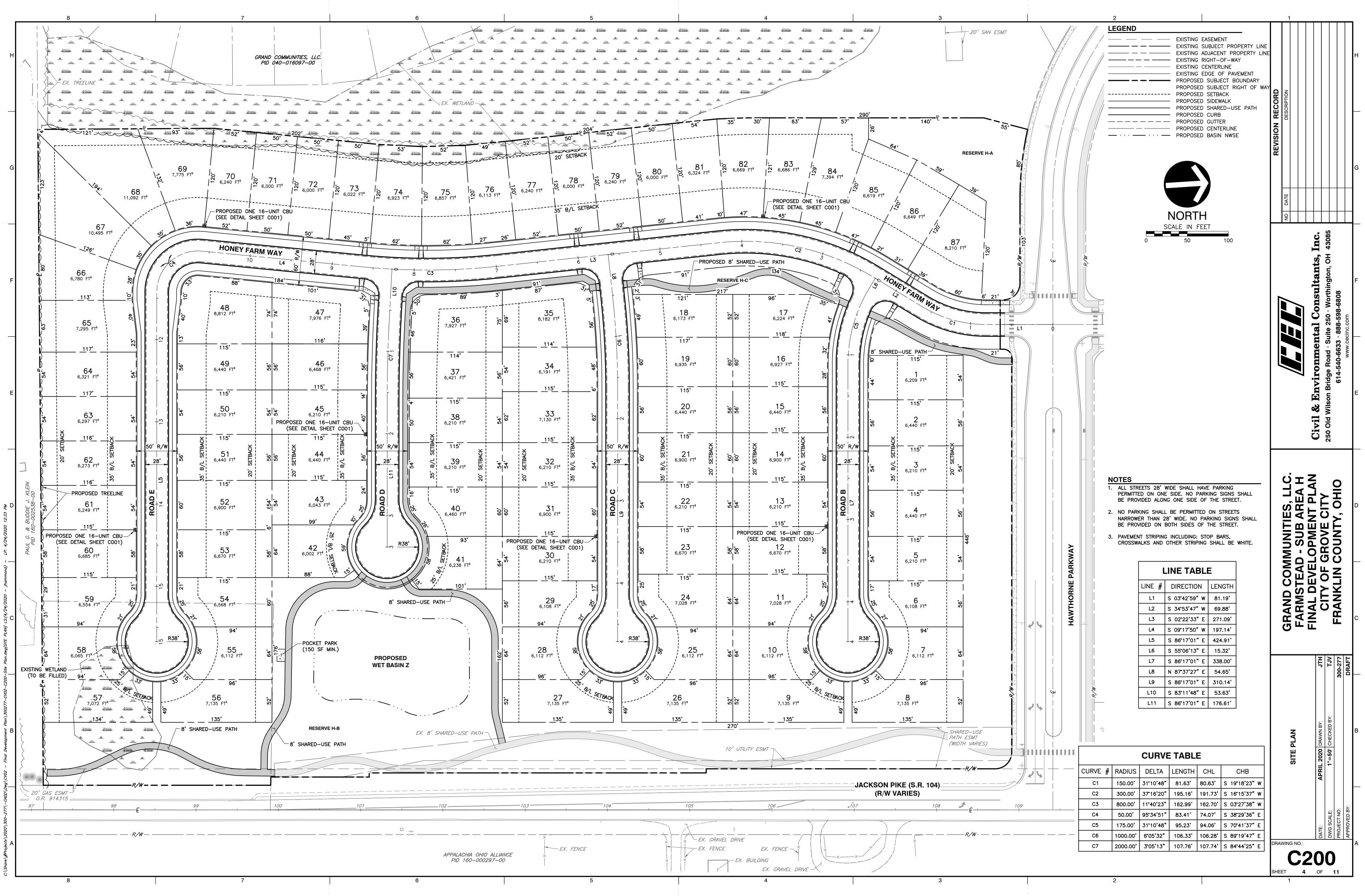


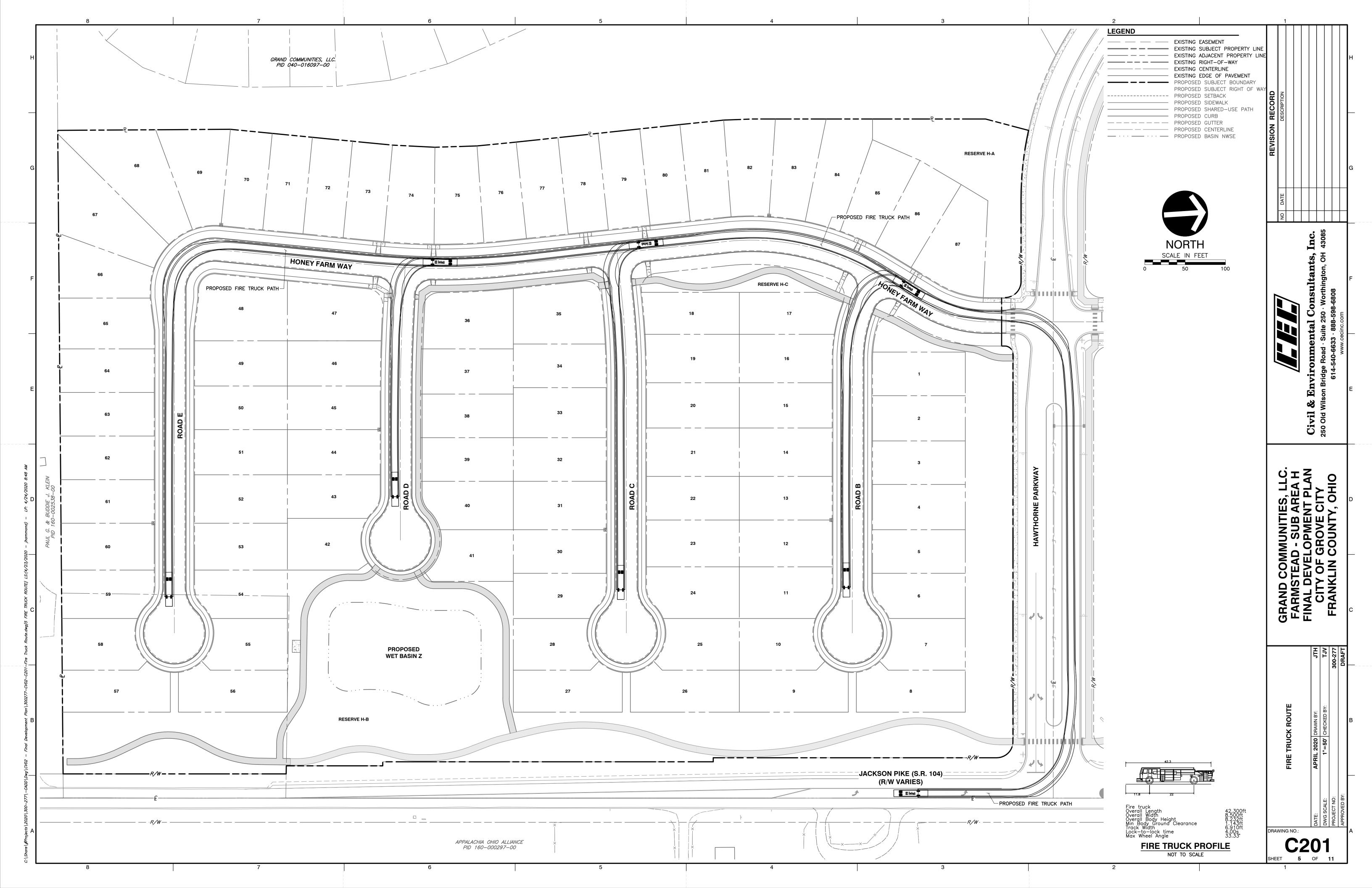
SHARED-USE PATH EASEMENT SHALL ENCOMPASS PATH WHEN LOCATED OUTSIDE OF * TYPICAL RIGHT-OF-WAY.

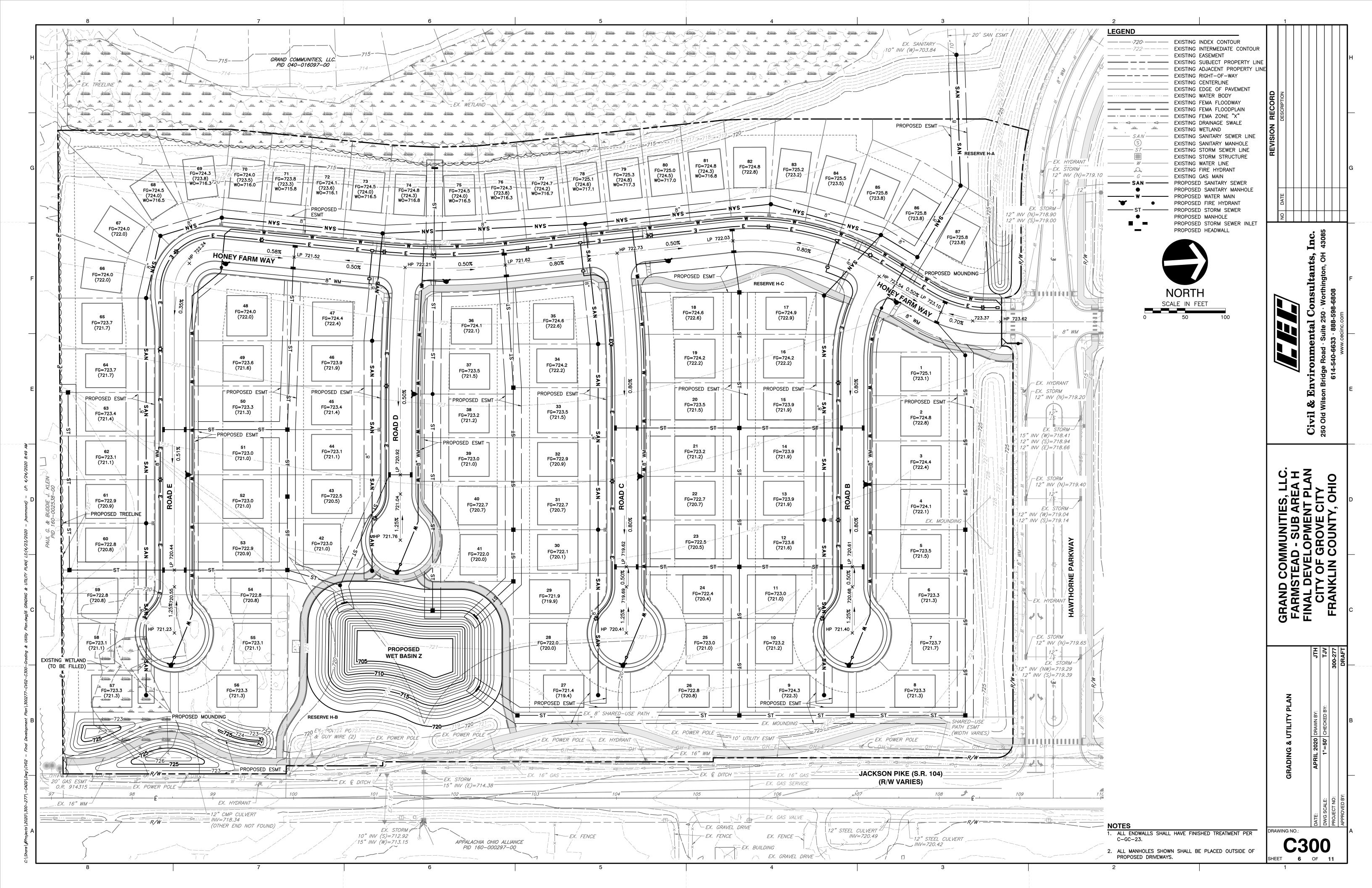


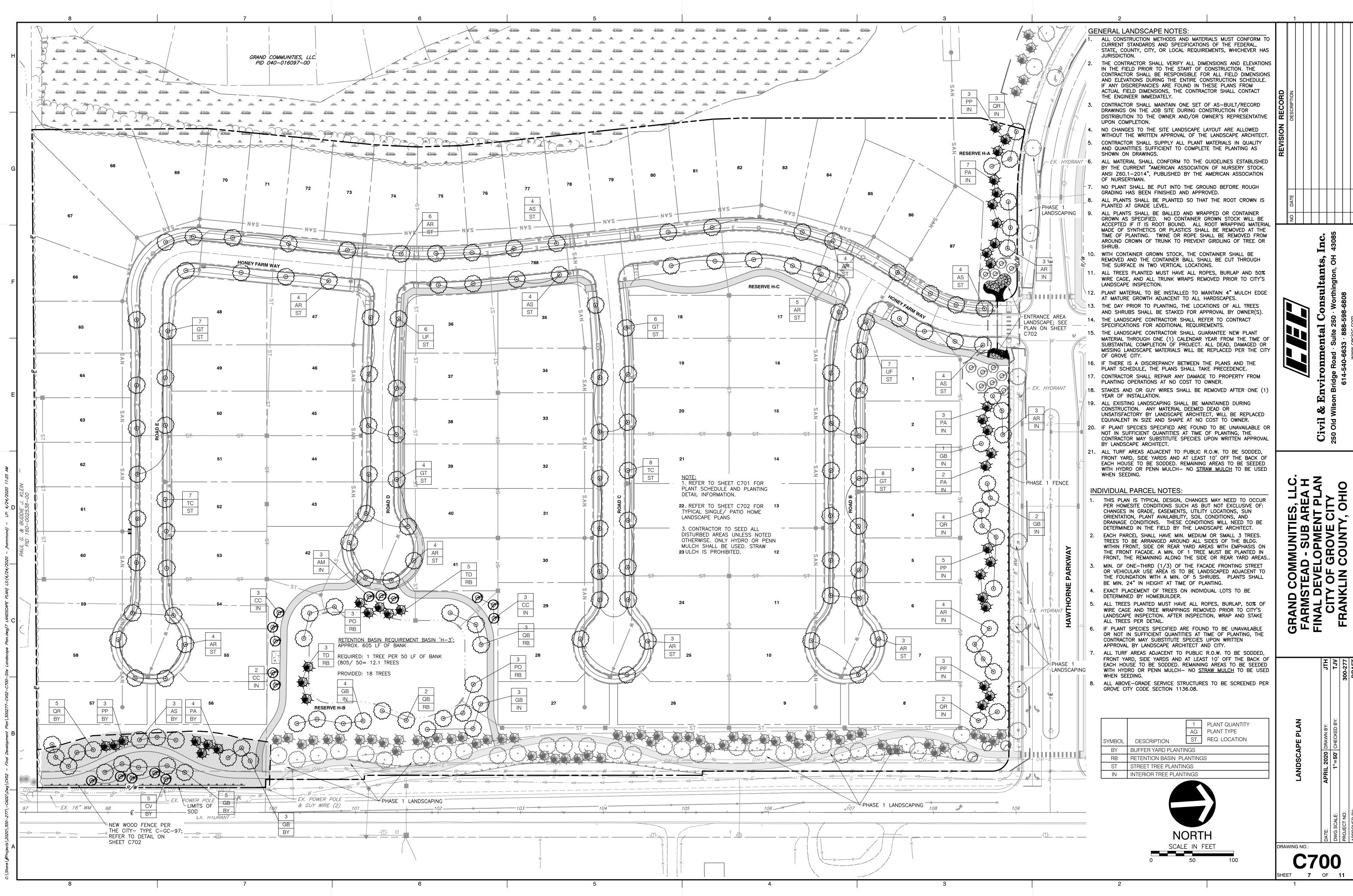












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Civil 250 Old V

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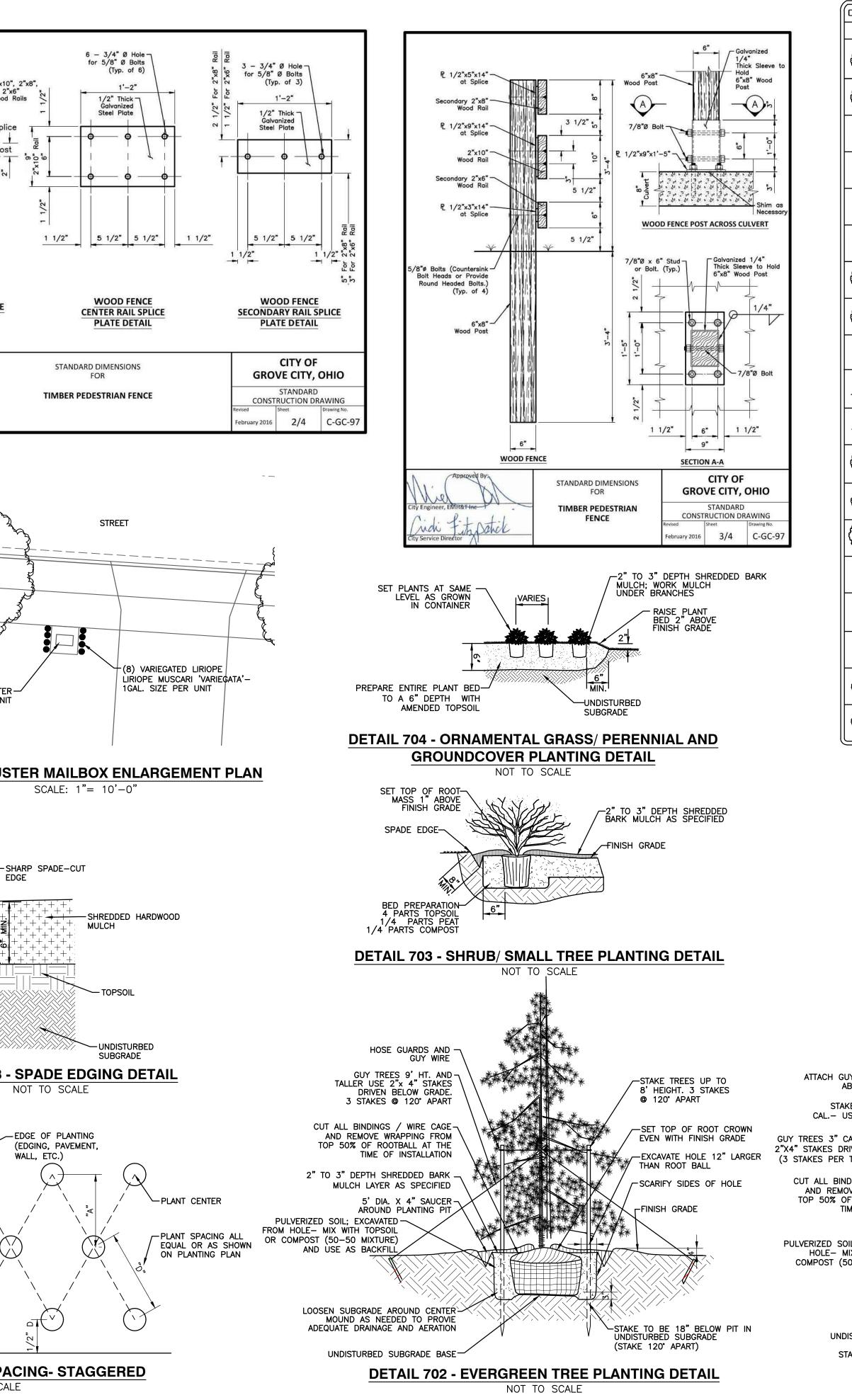
DWG (

C700

7 OF 11

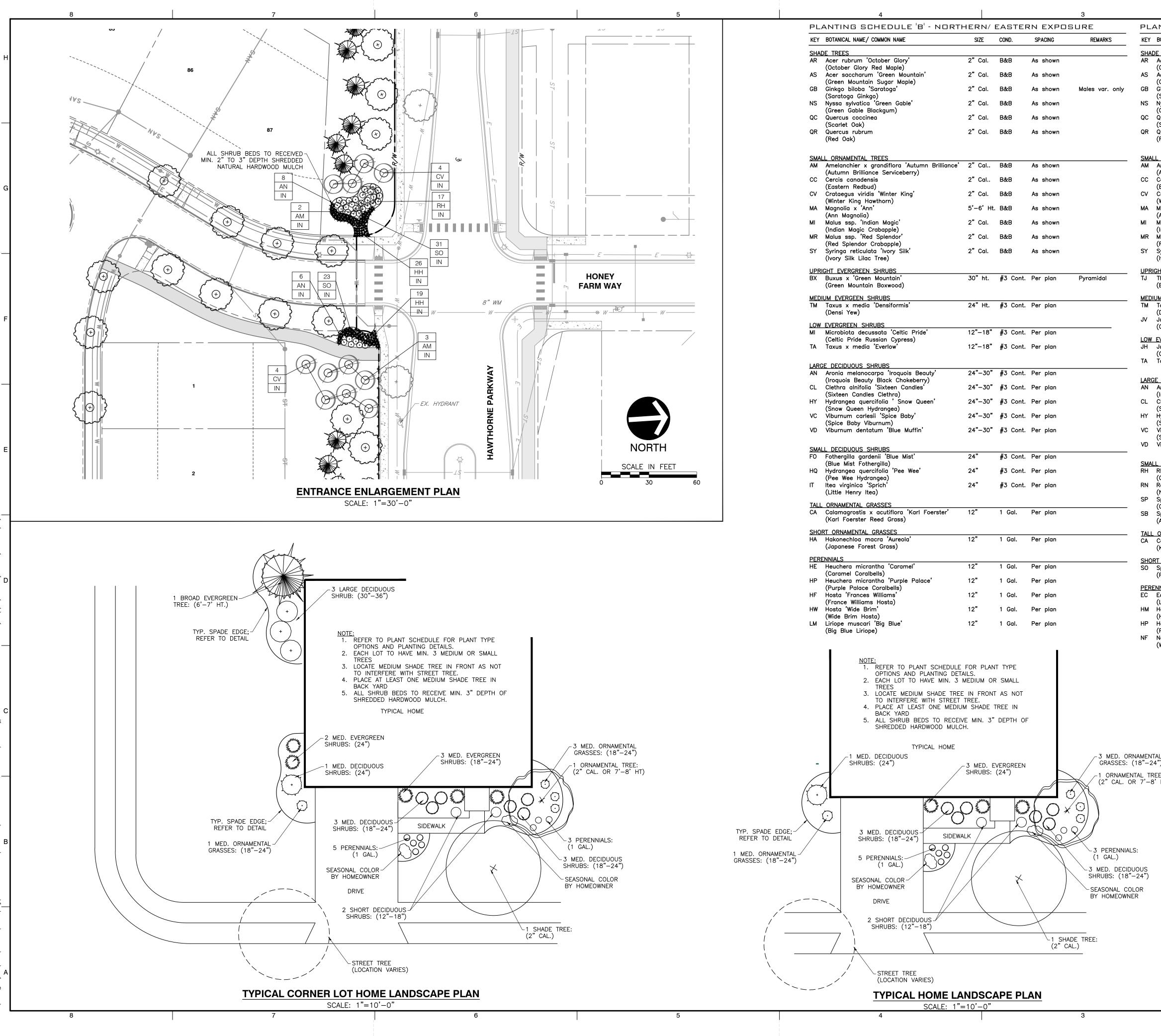
S, HO

г	8 7	6
H G	2"x6" Wood """""""""""""""""""""""""""""""""""	P 1/2*x5" For 2*x8" Roil P 1/2*x5" For 2*x8" Roil P 1/2*x3" For 2*x6" Roil € 1/2*x3" For 2*x6" Roil € 1/2*x3" For 2*x6" Roil
	Approved By: STANDARD DIMENSIONS FOR CITY OF GROVE CITY, OH	PLAN VIEW OF WOOD FENCE RAIL POST SPLICE DETAIL
F	City Engineer, EMH&Tine City Engineer, EMH&Tine City Engineer, EMH&Tine CONSTRUCTION DRAW Revised Sheet Draw	City Engineer, EMH&T-Inc
	NOTES:	
	 Details provided on this drawing refer to the wood fence and the secondary wood pedestrian rails on the modified Steel-backed Timber Pedestrian Fence. For details of the modified Steel-backed Timber Pedestrian Fence, including but not limited to the timber post, 6 x 10 timber rail, hardware, material and installation refer to FHWA standard drawings 617-60, 617-61 and 617-63. Upon completion of construction and when dry, 2 coats of a water repellant stain/sealer for wood shall be applied to all exposed wood surfaces. Water Repellant shall be Behr DECKplus Solid Color Waterproofing Wood Stain No. 213 Deep Base or approved equal. This detail shall not be used as a substitute for guardrail and/or in areas where guardrail is required by Federal Highway Administration and/or Ohio Department of Transportation Specifications and guidelines. WOOD FENCE AND SECONDARY RAILING ON TIMBER PEDESTRIAN FENCE Horizontal wood railing and 8"x6" wood fence posts shall be nominal sizes. all wood for fence and secondary railing components shall be pressure treated southern yellow pine #1 grade. 	
E	 When field cutting wood, treat the exposed cut surface with bituminous asphalt based roof cement, copper naphthenate paste, or approved preservation system. 5. MATERIALS Wood railing shall conform to ODOT specification 710.14 and 712.06. Wood components reclaimed from use in another application shall not be permitted. Wood components that meet material specifications listed but have been in storage for more than one year will also not be allowed. Wood components that meet material specifications listed but have been in storage for more than one year will also not be allowed. Wood components that meet material specifications listed but have been in storage for more than one year will also not be allowed. Wood components that meet material specifications listed but are subsequently sawn down to meet plan component cross section dimensions shall be pressure treated again after resizing and prior to placement as shown on the plans. All steel plate shall conform to ASTM-A572 with minimum yield strength of 50 ksi. All steel components shall be galvanized in accordance with ASTM-A123 or ASTM-153 and rate for corrosion protection for use in ACQ treated lumber. All anchor bolts, nuts, washers and studs for the wood fence shall conform the the physical properties of ASTM-A325 except that elongation shall be 10%. The chemical properties	TYP. CLUSTE MAILBOX UN
D	 are waived. All anchor bolts, nuts, washers and studs for the Steel-Backed Reinforced Fence, including those in the secondary rail, shall be weathering steel and conform to the specifications noted in the FHWA Standard Drawing 617-60. 6. WOOD COMPONENT PREVENTATIVE MAINTENANCE For long term durability it is strongly recommended that the owner periodically re-apply the water repellant sealer listed in note 2 to all exposed wood surfaces. The frequency of maintenance will be dependent on sound judgement in conjunction with the manufacturer's instructions and recommendations of the selected sealer. 	TYPICAL CLUS
	Approved By: STANDARD DIMENSIONS FOR GROVE CITY, OHIO	LAWN
с	City Engineer, EMH&T Ine TIMBER PEDESTRIAN STANDARD City Engineer, EMH&T Ine Fence CONSTRUCTION DRAWING City Service Director February 2016 4/4 C-GC-97 LAWN SEED, MAX. COVER 1/8", APPLY Cover 1/8", APPLY Cover 1/8", APPLY	
	DIRECTLY TO PREPARED TOP SOIL. SEED MIX AND RATE OF APPLICATION AS PER PLANTING SCHEDULE AND OR SPECIFICATIONS.	<u>DETAIL 708</u>
в	NOTES: Image: Notes:	
	 MINIMUM TOPSOIL DEPTH IS 4-6 INCHES. TOPSOIL SHOULD HAVE A GOOD HUMUS CONTENT. THIS CAN BE 20 TONS OF COMPOSTED MANURE PER ACRE OR 170 BALES OF PEAT PER ACRE. TOPSOIL WITH A PH OF 6 OR LESS WILL NEED A LIME AMENDMENT. EVENLY APPLY HYDRATED LIME OR GROUND LIMESTONE TO TOP SOIL UNTIL PH IS ADJUSTED TO BETWEEN 6-7. PH BELOW 5.5 OR ABOVE 7.5 IS UNACCEPTABLE FOR LAWNS. 650 LBS OF SLOW RELEASE WELL BALANCED FERTILIZER 10-10-10 PER ACRE SHOULD BE HARROWED INTO THE TOPSOIL PRIOR TO SEEDING. SEEDING IS BEST IN THE LATE SUMMER-EARLY AUTUMN. A HARROW MAY BE USED TO OBTAIN AN EVEN SURFACE THAT IS FIRM. THE SEED MAY BE MECHANICALLY SPREAD INTO THE SURFACE AS PER THE PLANTING SCHEDULE AND OR SPECIFICATIONS. 	"D" "A" NO. OF PLANTS/ SF 6" 0.C. 5.2" 4.61 8" 0.C. 6.93" 2.60 10" 0.C. 8.66" 1.66 12" 0.C. 10.4" 1.15 15" 0.C. 13.0" 0.738 18" 0.C. 15.6" 0.512 24" 0.C. 20.8" 0.29 30" 0.C. 26.0" 0.185 36" 0.C. 30.0" 0.128
А	6. SEE SPECIFICATIONS FOR ADDITIONAL NOTES. DETAIL 705- TURF DETAIL NOT TO SCALE	DETAIL 706- PLANTING SPA
		NOT TO SC/



	ALL PLANTING KEY QTY BOTANICAL AR 38 Acer rub 'October of	NAME COMMON NAME rum October Glory	SIZE COND 2" Cal. B & B	REMARKS Deciduous Tree	HEIGHT AT MATURITY SPREAD AT MATURITY 40'-50' 30'-50'					 ⊦
$\left(\begin{array}{c} \lambda \\ + \end{array}\right)$	AS 15 Acer sacci 'Green Mou		2" Cal. B & B	Deciduous Tree	<u>50'</u> 50'					
	AM 11 Amelanchier x 'Autumn Br	grandiflora Autumn Brilliance illance' Serviceberry	e <u>2" Cal.</u> B & B	Ornamental Tree	12'-15' 12'-15'	RECORD	DESCRIPTION			
)	AN 14 Aronia melo 'Iroquois B		24" No. 7 Cont.	Deciduous Shrub	<u>3'-4'</u> 4'-5'					
\bigcirc	CC 8 Cercis cano	adensis Eastern Redbud	2" Cal. B & B	Ornamental Tree (clump form)	20'-25' 20'-25'	REVISION				
\bigcirc	CV 13 Crataegus 'Winter k		2" Cal. B & B	Ornamental Tree	20'-25' 20'-25'					G
$\left\langle \cdot \right\rangle$	GB 18 Ginkgo bi 'Sarato		2" Cal. B & B	Deciduous Tree	50' 25'		DATE			
$\left(\begin{array}{c} \bullet \\ \bullet \end{array}\right)$	GT 25 Gleditsia tria inermis 'Shad		2" Cal. B & B	Deciduous Tree	50' 50'	L	O Q			
•	HH 45 Hemerocall 'Happy Re		12" No. 2 Cont.	Perennial Space 18"0.C.	18" 18"			Inc. 43085		ſ
	PA 16 Picea at	pies Norway Spruce	6' Ht. B & B	Evergreen Tree	40'-50' 25'-30'			Es, J		
	PP 14 Picea pur	igens Blue Spruce	6' Ht. B & B	Evergreen Tree	40'-50' 25'-30'			iltan iington		F
$\left\langle + \right\rangle$	PO 6 Platanus x c 'Exclama	acerifoliaExclamation Londo tion' Plane Tree	or 2" Cal. B & B	Deciduous Tree	50'-75' 60'-75'			Consultan	• 888-598-6808 cinc.com	
$\langle \cdot \rangle$	QB 5 Quercus b	icolor Swamp White Oak	2" Cal. B & B	Deciduous Tree	<u>50'</u> 40'			— ц	888-59	
$\left(\begin{array}{c} & & \\ & &$	QR 14 Quercus r	ubra Red Oak	2" Cal. B & B	Deciduous Tree	50' 40'			. .		ŀ
***	SO 54 Sporobolus he	terolepis Prairie Dropseed	12" No. 3 Cont.	Native Grass	<u>2'-3'</u> 2'-3'			Civil & Environm	614-540-6633 www.ce	
(+)	RH 17 Rhus aron 'Gro La		18" No. 7 Cont.	Deciduous Shrub	<u> </u>			E nvi n Bridç	61	
	TD 8 ^{Taxodium di}	stichum Bald Cypress	6' Ht. B & B	Evergreen Tree	40'-50' 15'-20'			d Wilso		
	TC 15 Tilia core	data Greenspire ire' Littleleaf Linden	2" Cal. B & B	Deciduous Tree	40'			Civil 250 Old		
	UF 13 Vimus ame Valley Fo	ericana Valley Forge	2" Cal. B & B	Deciduous Tree	50.	\vdash		.4		╉
12		OIE: LOCATE 1 STAKE SOUTHWEST OF TH 1- TREE STAP					AND COMMUNITIE: RMSTEAD - SUB AI	EVELOPME	FRANKLIN COUNTY, OHIO	
		, HARE	4, /	TO 1/3 RETAINI	CUT LEADER. THIN U 3 OF BRANCHES NG NATURAL SHAPE 20 NOT LEAVE STUBS	OF		JTH TJV	300-277 DRAFT	
ABOVE FIRS AKE TREES USE WOOD	UNDER 3"			4" WIDE 2 LAYE CEMENT	E TAPE CONSISTING (RS OF CRINKLED PAI ED TOGETHER, UP T	DF PER				
CAL. & LAF DRIVEN BELC	DW GRADE. 🔪 🕅			AFTER BEEN II	BRANCHES; REMOVE ALL PLANTINGS HAVE NSTALLED TE HOLE 12" LARGEF		DETAILS	BY: D BY:		
R TREE- 12 NDINGS / V IOVE WRAPF OF ROOTBAI TIME OF INS	WIRE CAGE PING FROM LL AT THE STALLATION			THAN F SET TOI EVEN W -5' DIA AROUNE	ROOT BALL P OF ROOT CROWN VITH FINISH GRADE X 4" DEEP SAUCER D PLANTING PIT		ANDSCAPE DET	APRIL 2020 DRAWN BY: AS NOTED CHECKED B		
SOIL; EXCAVA MIX WITH TO (50-50 MIX) USE AS	OPSOIL OR 🔪 🖉		H	FINISH	3" DEPTH SHREDDED LAYER AS SPECIFIED GRADE	BAKK	Γ	A A		┠
IDISTURBED STAKE TO BI	SUBGRADE BASE			LOO CEN ADE	RIFY SIDES OF HOLE SEN SUBGRADE AROU TER MOUND TO PRO QUATE DRAINAGE AND		AWING NO.:	DATE: DWG SCALE:	PROJECT NO: APPROVED BY:	,
UND	DETAIL 700 -	SHADE TREE NOT TO SC/ 2		AER	ATION			701 OF	11	

3



are/#Projects/2020/300-277\-CADD\Dwg\CV02 - Final Development Plan\300277-CV02-C700-Site Landscape Plan.dwgf9 T/PICAL SINGLE HOME LANDSCAPE PLAN} LS:(4/24/2020 - jhammond) - LP: 4/24/2020 11:25 AM

BOTANICAL NAME/ COMMON NAME	SIZE	COND.	SPACING	REMARKS					
TREES 	2" Cal.	B&B	As shown						
Dctober Glory Red Maple) cer saccharum 'Green Mountain'	2" Cal.	B&B	As shown						
Green Mountain Sugar Maple) inkgo biloba 'Saratoga'	2" Cal.	B&B	As shown	Males var. only					
Saratoga Ginkgo) yssa sylvatica 'Green Gable'	2" Cal.	B&B	As shown		D 2	NO			
Green Gable Blackgum) uercus coccinea	2" Cal.	B&B	As shown		RECORD	DESCRIPTION			
Scarlet Oak) uercus rubrum Red Oak)	2" Cal.	B&B	As shown			DESO			
					REVISION				
<u>ORNAMENTAL TREES</u> melanchier x grandiflora 'Autumn Brilliance' Autumn Brilliance Serviceberry)	2" Cal.	B&B	As shown		REVI				
ercis canadensis Eastern Redbud)	2" Cal.	В&В	As shown						
rataegus viridis 'Winter King' √inter King Hawthorn)	2" Cal.	B&B	As shown						
agnolia x 'Ann' nn Magnolia)	5'—6'Ht.	B&B	As shown					+	
alus ssp. 'Indian Magic'	2" Cal.	В&В	As shown			DATE			
ndian Magic Crabapple) alus ssp. 'Red Splendor' led Splender Crabapple)	2" Cal.	B&B	As shown				+++	+	_
ted Splendor Crabapple) rringa reticulata 'Ivory Silk' rory Silk Lilac Tree)	2" Cal.	B&B	As shown		┝	9 Z			
T EVERGREEN SHRUBS nuja occidentalis 'Emerald Green'	30"	ht. #3	Cont. Per plar	n Pyramidal			nc.	43085	
Emerald Green Arborvitae)	50	πο		yrannadi			s, I	0H 4	
<u>1 EVERGEEN SHRUBS</u> axus x media 'Densiformis' Densi Yew)	24" Ht.		Per plan				Consultants		
uniperus virginiana 'Grey Owl' Grey Owl Juniper)	12"—18"	#3 Cont.	Per plan				ulte	250 Old Wilson Bridge Road · Suite 250 · Worthington, 614-540-6633 · 888-598-6808	•
	12"-18"	#3 Cont.	Per plan				ISU	Wort	2000
Compact Plumosa Juniper) axus x media 'Everlow'	12"-18"		Per plan			Ű	2°	50 · /	
DECIDUOUS SHRUBS							tal	idge Road · Suite 250 · Worth e14_E40_6633 · 888_598_6808	www.cecinc.com
onia melanocarpa 'Iroquois Beauty' oquois Beauty Black Chokeberry)	24"-30"		Per plan				en	• Su	w.cec
ethra alnifolia 'Sixteen Candles' ixteen Candles Clethra)	24"-30"		Per plan				B	oad J_66	
ydrangea quercifolia ' Snow Queen' Snow Queen Hydrangea)	24"-30"		Per plan		"	Ň	0.0	e R(
burnum carlesii 'Spice Baby' Spice Baby Viburnum)		#3 Cont.	Per plan				vir	ridg.	5
iburnum dentatum 'Blue Muffin'	24"–30"	#3 Cont.	Per plan				Environmental	on Bı	
DECIDUOUS SHRUBS hus aromatica 'Gro-Low'	24"	#3 Cont.	Per plan				8	Wils	
Gro—Low Sumac) osa 'Nearly Wild	24"	#3 Cont.	Per plan				Civil	old	
Nearly Wild Shrub Rose) piraea japonica 'Gold Mound'	24"	#3 Cont.	Per plan				Ci	50	
Gold Mound Spirea) piraea bumalda 'Anthony Waterer'	24"	#3 Cont.	Per plan					N	
Anthony Waterer Spirea)		A 5 1							
alamagrostis x acutiflora 'Karl Foerster' Karl Foerster Reed Grass)	12"	1 Gal.	Per plan			ίI	Z	ſ)
ORNAMENTAL GRASSES porobolus heterolepis	12"	1 Gal.	Per plan			א ך	, רא אין	- I	
^p rairie Dropseed Grass) NIALS						Ν̈́, Ξ		źŌ)
chinacea purpurea 'Little Giant' .ittle Giant Coneflower)	12"	1 Gal.	Per plan			∎ Z	z'	ר 	•
emerocallis 'Happy Returns	12"	1 Gal.	Per plan			UNIT SUB	PMEN	⊔ - ≥ Z	
lappy Returns Daylily euchera micrantha 'Purple Palace' Purple Balace Coralballe)	12"	1 Gal.	Per plan			S IS	<u>ק</u>		
Purple Palace Coralbells) epeta x faassenii 'Walker's Low'	12"	1 Gal.	Per plan				, o, ç	בכ	
Valker's Low Catmint)						M			,
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						GRAND FARMS	NIN NA	ם ר ש	2
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	TYPICAL DE	SIGN, CHAI		D TO OCCUR PER			JTH		DRAFT
: GRADE, EASEM HT) AVAILABILITY, S	ENTS, UTILI SOIL CONDIT	TY LOCATIO IONS, AND	NS, SUN ORIEN DRAINAGE CON	VE OF: CHANGES IN NTATION, PLANT IDITIONS. THESE					
CONDITIONS WI LANDSCAPE AR	ILL NEED TO CHITECT.	O BE DETE	RMINED IN THE	FIELD BY THE					
TO BE ARRANG	GED AROUN	D ALL SIDE	S OF THE BLD	J TREES. TREES					
	TREE MUST	BE PLANTI	ED IN FRONT,	IE FRONT FACADE. THE REMAINING		HOME		BY:	
3. MIN. OF ONE- VEHICULAR US	THIRD (1/3 E AREA IS	5) OF THE TO BE LAN	FACADE FRONT			LE HC	DRAWN BY:	CHECKED B	
24" IN HEIGHT	AT TIME C	OF PLANTIN	G.	SHALL BE MIN.		SINGLE SCAPE PI			
BY HOMEBUILD	ER.			TO BE DETERMINED		CAL S	RIL 2020	OTED	
CAGE AND TRE	E WRAPPIN	GS REMOVE	ED PRIOR TO C	AP, 50% OF WIRE			APRIL	AS NO	
DETAIL.						۲ ۲	٦ 		
NOT IN SUFFIC CONTRACTOR N	NENT QUAN MAY SUBSTI	TITIES AT T TUTE SPEC	IME OF PLANTI	INAVAILABLE OR NG, THE TEN APPROVAL BY					
LANDSCAPE AR					1			II.	. :-
	AS ADJACEN	NT TO PUR	LIC R.O.W. TO	BE SODDED, FRONT				CALE:	VED BY:

 ALL TURF AREAS ADJACENT TO PUBLIC R.O.W. TO BE SODDED, FRONT YARD, SIDE YARDS AND AT LEAST 10' OFF THE BACK OF EACH HOUSE TO BE SODDED. REMAINING AREAS TO BE SEEDED WITH HYDRO OR PENN MULCH- NO <u>STRAW MULCH</u> TO BE USED WHEN SEEDING.

8. ALL ABOVE-GRADE SERVICE STRUCTURES TO BE SCREENED PER GROVE CITY CODE SECTION 1136.08.

C702 SHEET 9 OF 11

DRAWING NO .:

DATE: DWG (PROJE

