CITY OF DELAWARE
SHADE TREE COMMISSION
CITY COUNCIL CHAMBERS
CITY HALL
1 SOUTH SANDUSKY STREET
6:30 P.M.

AGENDA

February 25, 2020

1. ROLL CALL

2. WELCOME Shade Tree Commission Liaison, Councilman Drew Farrell

3. APPROVAL of the Motion Summary for the meeting held October 22, 2019, as recorded and transcribed.

4. PUBLIC COMMENTS

5. ARBORIST REPORT

6. DISCUSSION of Community Outreach Activities
   A. Arbor Day
   B. First Friday
   C. NOW Festival

7. DISCUSSION of the City Council Annual Report

8. STAFF COMMENTS

9. MEMBERS COMMENTS
   A. Volcano Mulching Flyer

10. PLAN REVIEWS
    A. Willowbrook Section 3
    B. VFW Post #3297
    C. Terra Alta/Stockdale Farms
    D. Sheetz
    E. Delaware City Schools- Schultz Elementary
    F. Merchants Retail
    G. K2 Development
    H. Enclaves at Ravines at Olentangy
    I. Communities at Glen Ross – Section 16
    J. Charter Nex

11. ADJOURNMENT

SHADE TREE COMMISSION
October 23, 2019
MOTION SUMMARY

ITEM 1. Roll Call

Chairwoman Wright called the meeting to order at 6:30 p.m.

Members Present: Melissa Bargar, Grace Martin, Dave Carey, Tom Wolber, Becki Wood-Meek, Vice-Chairwoman Shannon Brewster and Chairwoman Wright

Members Absent: Tom Glissman and Stan Eddy

Staff Present: Doug Richmond, Arborist

Motion to Excuse: Mr. Wolber moved to excuse Mr. Glissman and Mr. Eddy seconded by Mr. Carey. Motion approved with an 7-0 vote.

ITEM 2. ELECTION OF OFFICERS
A. Chairperson

Motion: Ms. Wright motioned to nominate Ms. Brewster as Chairperson, seconded by Ms. Wood-Meek. There were no other nominations. Motion approved by a 7-0 vote.

B. Vice-Chairperson

Motion: Mr. Carey motioned to nominate Ms. Wright as Vice-Chairperson, seconded by Ms. Wood-Meek. There were no other nominations. Motion approved by a 7-0 vote.

ITEM 3. APPROVAL OF MOTION SUMMARY of Shade Tree Commission meeting of August 27, 2019 as recorded and transcribed.

Motion: Vice-Chairwoman Wright moved to approve the Motion Summary for the August 27, 2019 meeting, seconded by Mr. Wolber. Motion approved with an 7-0 vote.

ITEM 4. PUBLIC COMMENTS

There was no public comment.

ITEM 5. ARBORIST REPORT

Mr. Richmond discussed the current tree pruning activity. He discussed that

there were 49 service requests and that there will be 100 street trees planted. 70 of the trees to be planted will be done by a contractor and 30 trees will be planted in house. Mr. Richmond discussed that his staff varies from day to day and depends on the tasks that are needing completed. He informed the Commission that there will be three trees removed from Oak Grove Cemetery. One tree is a white oak tree that is approximately 150-200 years old and then there are 2 maples toward the back entrance that will be removed.

Mr. Wolber discussed the Cemetery Master Plan and questioned that trees are not mentioned in the plan. Mr. Richmond discussed that he was consulted regarding the Master Plan and that he will take an active role in later stages and that the current planning is the layout of streets and the park area.

Mr. Richmond discussed that the street trees that are purchased come from Acorn Farms and that the 100 trees are to replace trees that have been removed. Street trees for new developments are the responsibility of the developer and there is a two-year warranty that the developer is responsible for if the tree dies.

ITEM 6. STAFF COMMENTS

Mr. Richmond provided a handout regarding volcano mulching that can be used to educate the public. The Commission agreed to use the handout as a template, but to create a new form. Vice-Chairwoman Wright and Ms. Bargar agreed to create a form and will email it out to the Commission for review.

Mr. Richmond provided the Commission with a flyer to demonstrate a placard for Heritage Tree program. The Commission discussed potential trees throughout the City that would be a good tree to display the placard.

Mr. Richmond provided the Commission with up to date balance on the Tree Replacement Fund.

ITEM 7. MEMBER COMMENTS

The Commission discussed their meeting schedule and voiced concerns regarding not having a meeting in December or January. The Clerk did inform the Commission that meetings can be scheduled with proper notice to the public. The Commission discussed meeting informally in January to discuss potential outreach efforts by the Commission.

Mr. Wolber provided information from the Watershed Forum that he participated in at Ohio Wesleyan University. He discussed that Charles Flower presented on Dutch elm disease.

ITEM 8. PLAN REVIEWS

A. OWU Village Student Housing – Approved as submitted
B. Green Dental - Approved as submitted
C. Coughlin's Crossing Phase 2 – Approved with request for information on trees in park area
D. Delaware County Fairgrounds – Approved with Arborist confirming species and amounts
E. Innovation Center – Approved if complies with FAA regulations
F. Winterbrooke Place (Informational)
G. Enclave II (Informational)

ITEM 9. ADJOURNMENT

Motion: Mr. Wolber moved to adjourn the meeting, seconded by Ms. Wood-Meek. The Shade Tree Commission meeting adjourned at 8:24 p.m.

_____
Chairperson

_____
Clerk

ARBORIST REPORT

January 2020
MONTHLY SUMMARY

Street Trees		
	City Staff	**Contractor**
Planting	0	o
Pruning	68	0
Tree Removal	1	2
Stump Removal	1	3
Service Requests	4	
Other		
Park Trees		
Planting		
Pruning		
Tree Removal	0	
Stump Removal	0	
Service Requests		
Other		

Plan Review			
Project	**Tree Survey**	**Landscape Plan**	**Tree Inspection**
Delaware City Schools	Reviewed	Submitted	Completed
Charter Nex	Reviewed	N/A	Completed
Willowbrook 3	Reviewed	Submitted	Completed
Communities at Glen Ross Sec 16	Reviewed	Submitted	Completed
K2 Development	Not Submitted	N/A	N/A
VFW	Not submitted	N/A	N/A
Mechants Retail	Not Submitted	N/A	N/A
Terra Alta	Not Submitted	Not Submitted	Not Submitted
Enclave at the Ravines of Olentangy (private homes)	Not Submitted	Submitted	Not Submitted

Issues/Concerns - City of Delaware Has been named as a Tree City USA for the 39th consecutive year.

ARBORIST REPORT

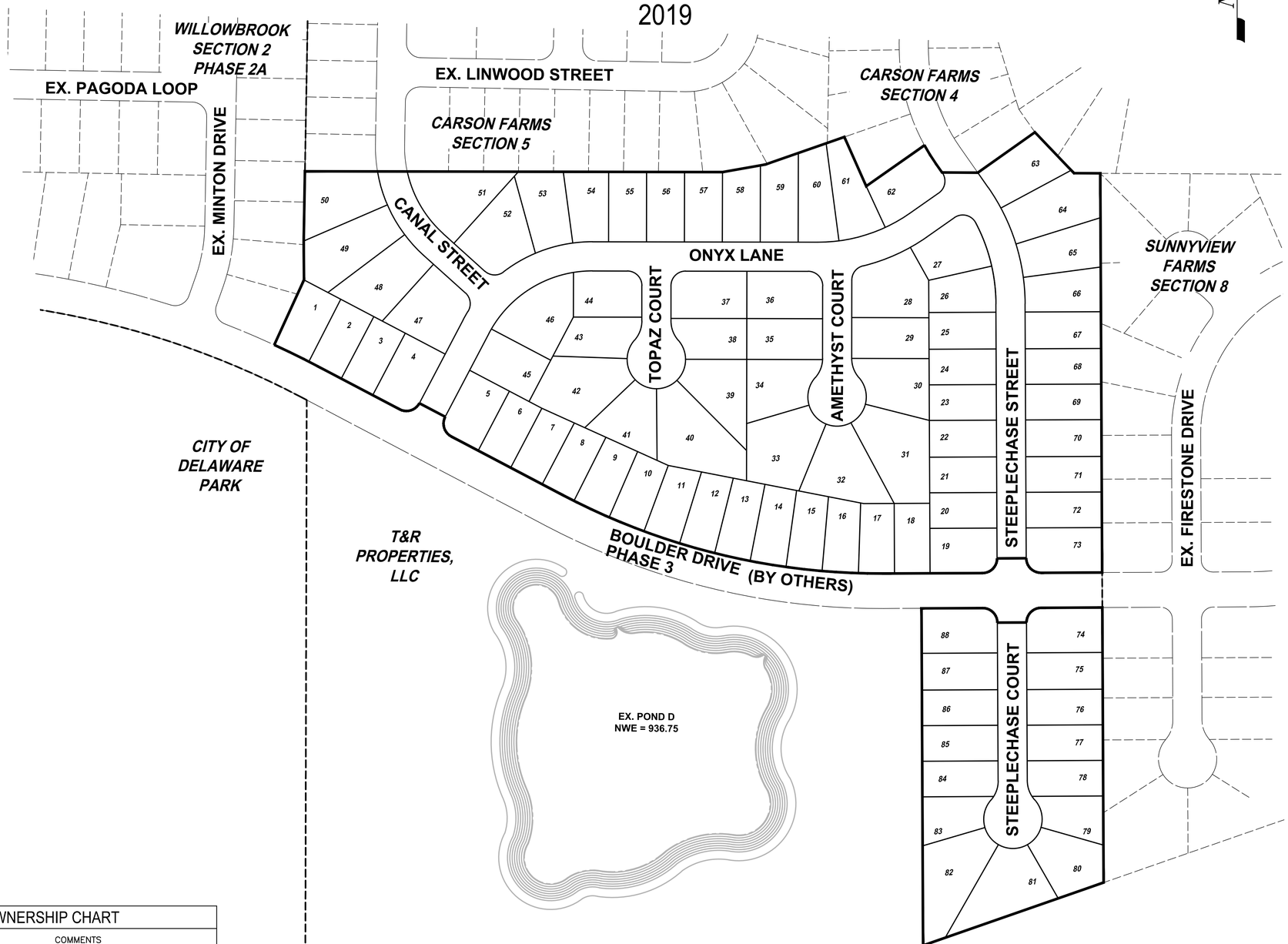
2019 YEAR END SUMMARY

Street Trees		
	City Staff	**Contractor**
Planting	35	70
Pruning	1219	8
Tree Removal	27	40
Stump Removal	40	24
Service Requests	255	
Other		
Park Trees		
Planting	2	
Pruning	43	
Tree Removal	8	
Stump Removal	4	
Service Requests		
Other		

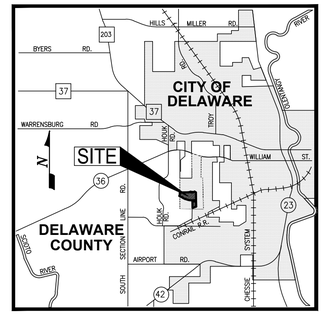
Plan Review			
Project	**Tree Survey**	**Landscape Plan**	**Tree Inspection**
19 total Plan Reviews			

Issues/Concerns

CITY OF DELAWARE, OHIO
WILLOWBROOK SECTION 3
FINAL DEVELOPMENT PLAN
2019



INDEX MAP
SCALE: 1"= 100'



VICINITY MAP
NOT TO SCALE

DEVELOPMENT SUMMARY		
DEVELOPMENT USE	NUMBER	ACREAGE
RIGHT–OF–WAY	–	3.516
RESERVES	–	0.000
PLATTED LOTS	88	18.982
TOTAL		22.498

PLATTED LOT DEVELOPMENT STANDARDS
TYPICAL LOT DIMENSIONS: 60' X 120'
MINIMUM WIDTH: 60'
MINIMUM LOT AREA: 7,000 SF
MAXIMUM LOT COVERAGE: 40%
MAXIMUM BUILDING HEIGHT: 35 FT.

ZONING COMPLIANCE
THE PROPOSED DEVELOPMENT COMPLIES WITH ALL REQUIREMENTS OF THE APPROVED PUD ZONING TEXT, REZONING APPLICATION #PC99-24 & #PC99-25.

OWNER/DEVELOPER
MR. RON SABATINO
MEDROCK, LLC
3895 STONERIDGE LANE
DUBLIN, OH 43017
(614) 923-4000

FLOOD DESIGNATION
THIS SITE LIES IN ZONE X OF FEMA FIRM PANEL 39041C0111K EFFECTIVE DATE APRIL 16, 2009.

SHEET INDEX

1 TITLE SHEET
2 SITE LAYOUT PLAN
3 SITE UTILITY PLAN
4 LIGHTING, LANDSCAPE & SIGNAGE PLAN

INFRASTRUCTURE OWNERSHIP CHART			
INFRASTRUCTURE ITEM	PRIVATE	PUBLIC	COMMENTS
SANITARY SEWER		X	8" MAINS CONNECTING TO EXISTING 8" SEWERS ON BOULDER DRIVE & STEEPLECHASE STREET AND SEWERS CONSTRUCTED WITH WILLOWBROOK SECTION2.
WATER		X	CONNECTED TO 8" MAINS AT BOULDER DRIVE, CANAL STREET & STEEPLECHASE STREET.
STREETS		X	CONNECTIONS TO BOULDER DRIVE, CANAL STREET AND STEEPLECHASE STREET.
STORM SEWERS		X	DRAINS TO EXISTING STORM SEWERS CONSTRUCTED IN CARSON FARMS AND SEWERS CONSTRUCTED WITH WILLOWBROOK SECTION 2.

NOTE: THE CITY RESERVES THE RIGHT TO ENSURE ALL INFRASTRUCTURE IS PROPERLY CONSTRUCTED AND INSTALLED, REGARDLESS OF OWNERSHIP.

REV	DATE	BY	CHKD	DESCRIPTION
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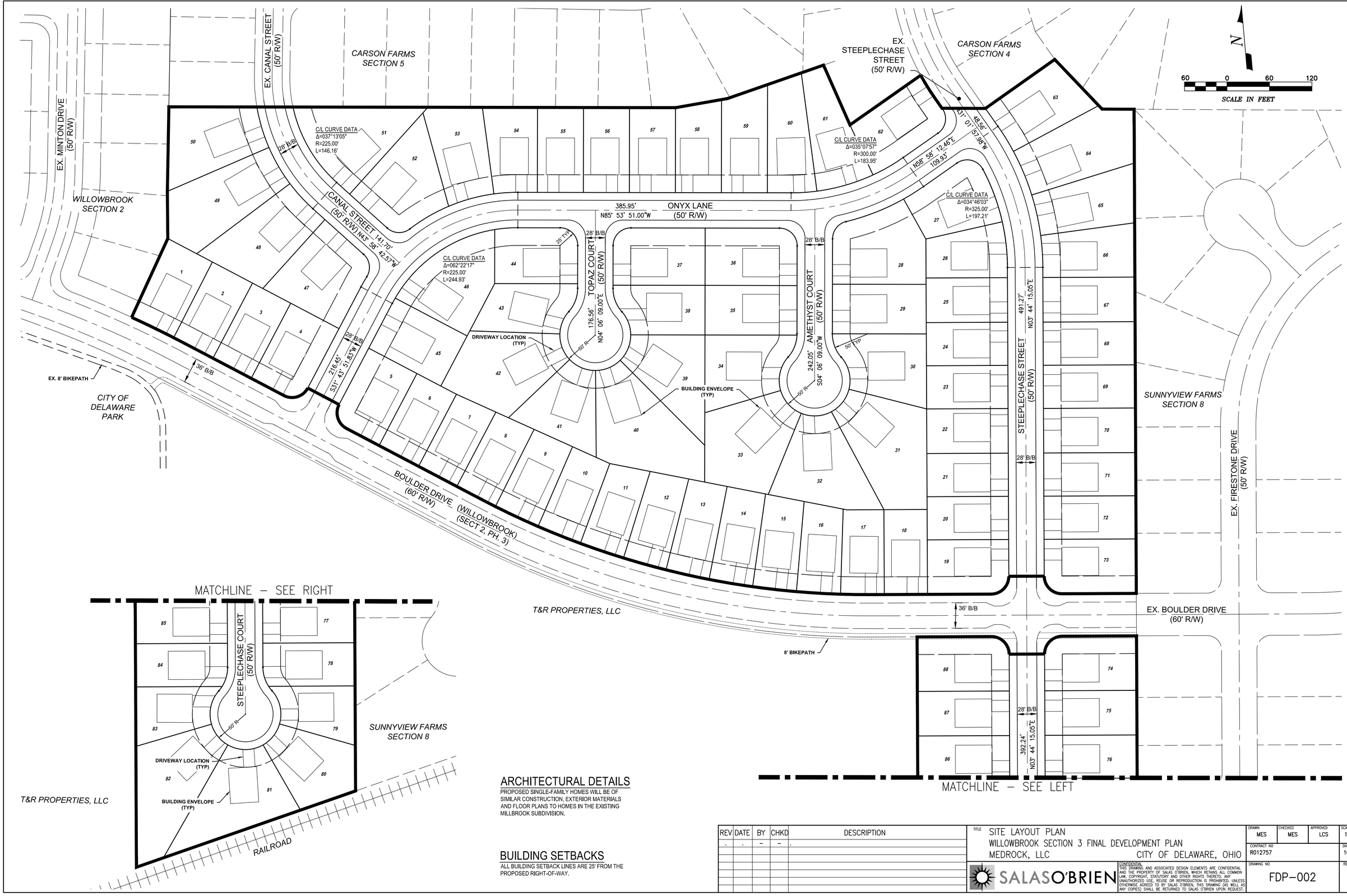
TITLE: TITLE SHEET
WILLOWBROOK SECTION 3 FINAL DEVELOPMENT PLAN
MEDROCK, LLC CITY OF DELAWARE, OHIO

SALASO'BRIEN

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DRAWN	CHECKED	APPROVED	SCALE
MES	MES	LCS	AS NOTED

CONTRACT NO: R012757
DATE: 10/31/19
DRAWING NO: FDP–001
REVISION: –



ARCHITECTURAL DETAILS

PROPOSED SINGLE-FAMILY HOMES WILL BE OF SIMILAR CONSTRUCTION, EXTERIOR MATERIALS AND FLOOR PLANS TO HOMES IN THE EXISTING MILLBROOK SUBDIVISION.

BUILDING SETBACKS

ALL BUILDING SETBACK LINES ARE 25' FROM THE PROPOSED RIGHT-OF-WAY.

REV	DATE	BY	CHKD	DESCRIPTION
.	.	–	–	.

TITLE: SITE LAYOUT PLAN
WILLOWBROOK SECTION 3 FINAL DEVELOPMENT PLAN
MEDROCK, LLC CITY OF DELAWARE, OHIO

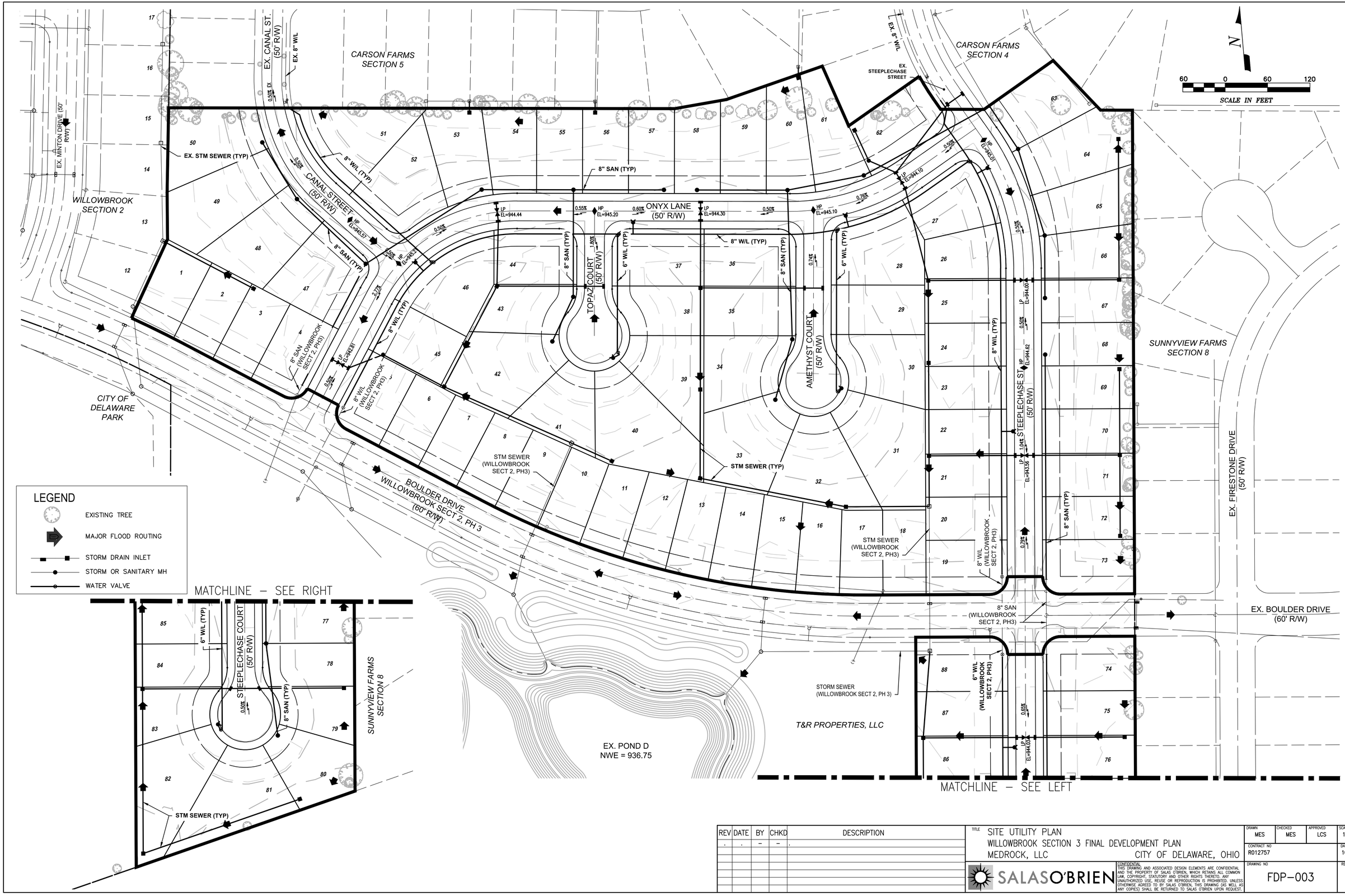
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DRAWN	CHECKED	APPROVED	SCALE
MES	MES	LCS	1" = 60'

CONTRACT NO	DATE
R012757	10/31/19

DRAWING NO	REVISION
FDP–002	–



REV	DATE	BY	CHKD	DESCRIPTION
.	.	–	–	.

TITLE
SITE UTILITY PLAN
WILLOWBROOK SECTION 3 FINAL DEVELOPMENT PLAN
MEDROCK, LLC CITY OF DELAWARE, OHIO

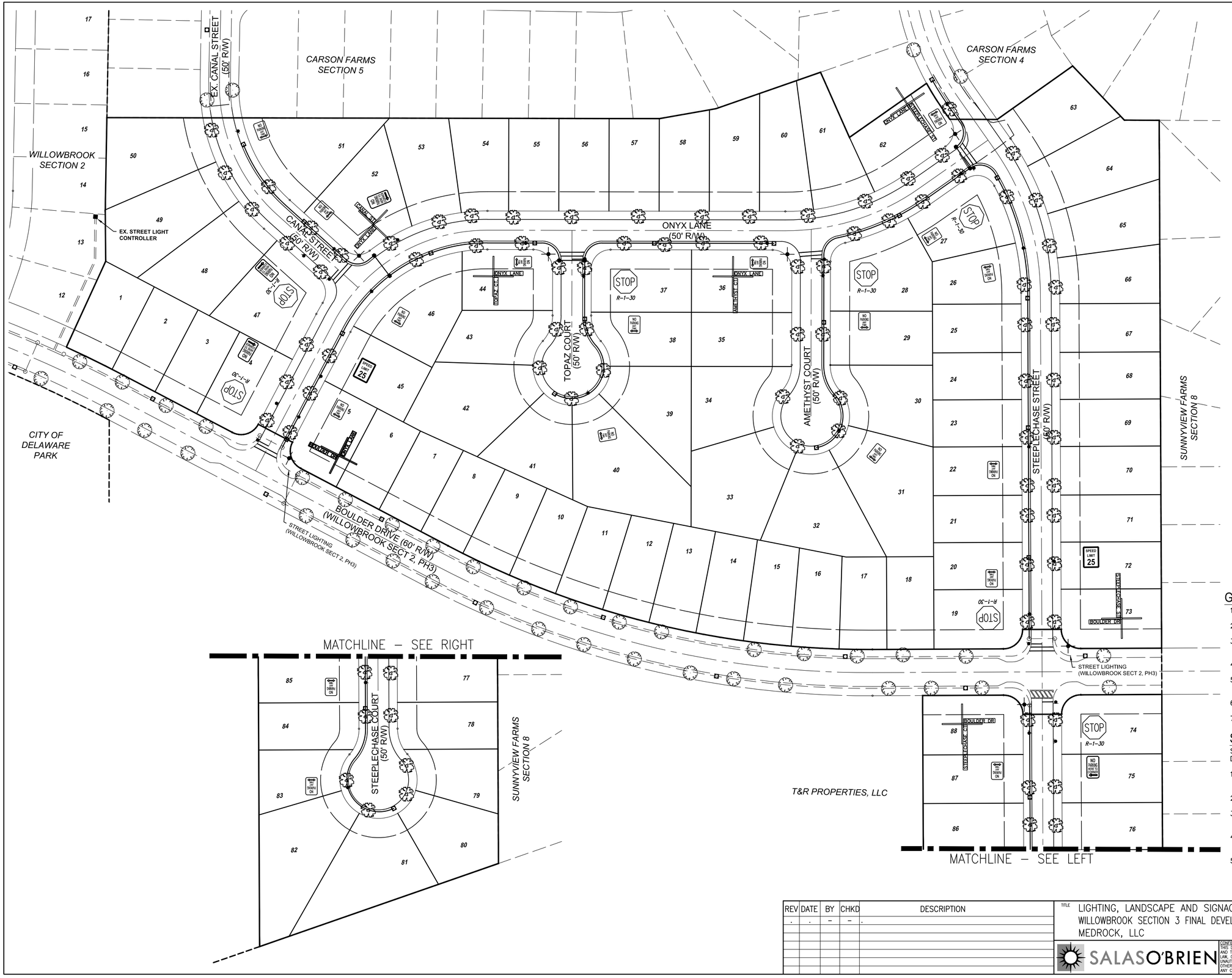
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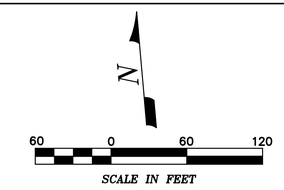
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DRAWN	CHECKED	APPROVED	SCALE
MES	MES	LCS	1" = 60'

CONTRACT NO R012757 | DATE 10/31/19

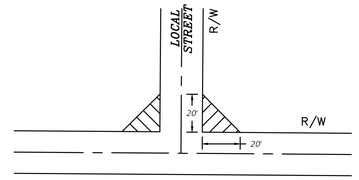
DRAWING NO FDP–003 | REVISION –





LEGEND

- SIGNS
- STOP BAR
- CROSS WALK
- LIGHT POLE
- PULL BOX
- PROPOSED DECIDUOUS STREET TREE (1–3/4" MIN CALIPER AT TIME OF PLANTING)
- EXISTING DECIDUOUS STREET TREE



SIGHT DISTANCE TRIANGLE

NOT TO SCALE

NOTES: NO STREET TREES ARE TO BE PLANTED IN THE SIGHT TRIANGLE PER CITY OF DELAWARE ZONING CODE SECTION 1149.06.

NO STREET TREES ARE TO BE PLANTED WITHIN 10' OF FIRE HYDRANTS

STREET TREES ARE TO BE PLANTED PER RDWD–19.3, RDWD–33.1 AND RDWD–33.2

GENERAL NOTES:

1. ALL NURSERY STOCK SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS–ANSI Z60.1
2. CONFIRM LOCATIONS OF ALL UTILITIES AND SUBSURFACE DRAIN LINES PRIOR TO TREE INSTALLATION.
3. TREE LOCATIONS SHALL BE LOCATED BY CONTRACTOR AND APPROVED BY THE SHADE TREE COMMISSION PRIOR TO INSTALLATION.
4. CONTRACTOR SHALL SEE OR SOD ALL AREAS DISTURBED DURING CONSTRUCTION
5. CONTRACTOR SHALL THOROUGHLY WATER ALL LANDSCAPE PLANT MATERIAL AND MULCHED AREA AT TIME OF PLANTING THROUGH THE PERIOD OF ADJUSTMENT
6. CONTRACTOR TO SLIGHTLY ADJUST TREE LOCATIONS AS NECESSARY TO AVOID UTILITIES
7. TREES SHALL BE SELECTED FROM REGIONAL NURSERY GROWERS.

STREET TREES:

STREET TREES ARE TO BE PLANTED IN ACCORDANCE OF CITY OF DELAWARE ZONING CODE CHAPTER 1166

1. TREES SHALL BE LIMITED TO SPECIES CHARACTERIZED AS HARDY, LONG–LIVED SHADE TREES, AS DEFINED BY THE SHADE TREE COMMISSION.
2. ONE TREE SHALL BE PROVIDED FOR EVERY FORTY (40) LINEAR FEET OF FRONTAGE, OR FRACTION THEREOF, ALONG EACH ROAD.
3. TREES ARE TO BE PLANTED WITHIN THE RIGHTS–OF–WAY OF OR WITHIN AND ABUTTING THE DEVELOPMENT AS DIRECTED BY THE SHADE TREE COMMISSION.
4. EACH TREE AT THE TIME OF INSTALLATION SHALL HAVE A MINIMUM CALIPER OF 1.75 INCHES AND A CLEAR TRUNK HEIGHT OF AT LEAST SIX (6) FEET. (ORD 02–54 PASSED JUNE 10, 2002)
5. TREES SHALL BE PLANTED AN ADEQUATE DISTANCE FROM INTERSECTIONS SO THAT AT FULL MATURITY SUCH PLANTING SHALL COMPLY WITH SECTION 1149.06 TO ENSURE THE UNOBSTRUCTED VISIBILITY OF MOTORISTS AND PEDESTRIANS.

REV	DATE	BY	CHKD	DESCRIPTION
.	.	–	–	.

TITLE: LIGHTING, LANDSCAPE AND SIGNAGE PLAN
WILLOWBROOK SECTION 3 FINAL DEVELOPMENT PLAN
MEDROCK, LLC CITY OF DELAWARE, OHIO

SALASO'BRIEN

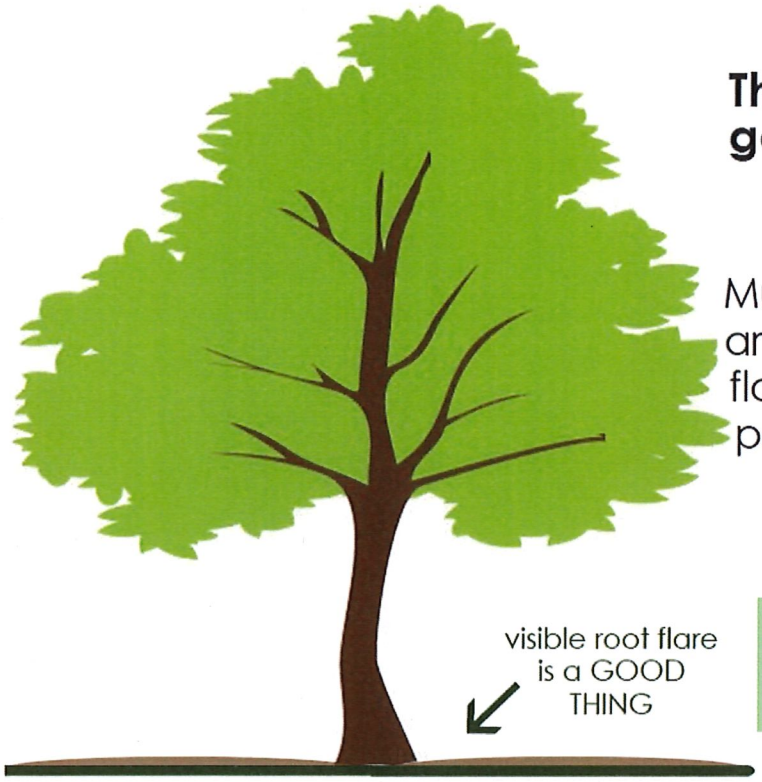
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DRAWN	CHECKED	APPROVED	SCALE
MES	MES	LCS	1" = 60'

CONTRACT NO	DATE
R012757	10/31/19

DRAWING NO	REVISION
FDP–004	–

proper mulching techniques



proper mulch - GOOD

The city of Delaware is dedicated to good tree health and maintenance, as well as educating the public.

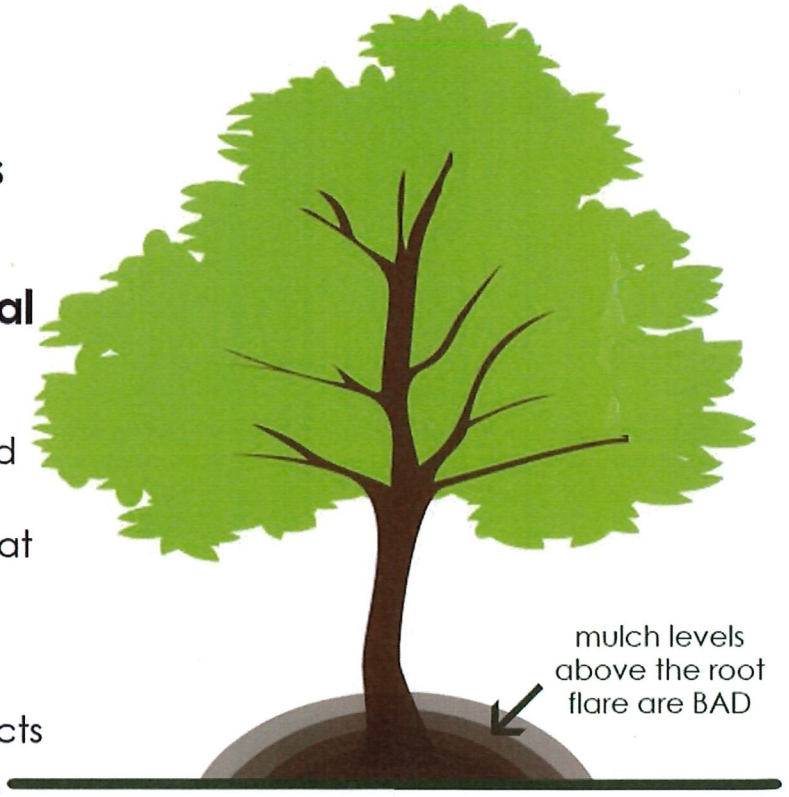
Mulching, the spread of organic material around the base of trees or shrubs and in flower gardens, helps maintain humidity, prevent soil erosion, control weeds, and add nutrients to the soil.

BUT....

too much of a good thing can be bad!

Mulch should be positioned around the tree so that the roots that branch off from the main trunk are visible. No visible root flare can lead to several potential problems:

- Poor root development due to reduced oxygen availability
- Girdling, or effectively severing roots that can eventually kill the tree
- Bark and trunk decay
- Stunted growth
- Weak trees that are susceptible to insects and diseases



volcano mulch - BAD

TREE CITY USA

More information is available from the International Society of Arboriculture, Ohio State Extension, and from Delaware's City Arborist.

To contact the Delaware Arborist, call XXX-XXX-XXXX or email at drichmond@delawareohio.net.

EST 1808
CITY OF
DELAWARE
OHIO

PLAN REVIEW A:

Willowbrook

Section 3

CARSON FARMS SECTION 5

CARSON FARMS SECTION 4

WILLOWBROOK SECTION 2

SUNNYVIEW FARMS SECTION 8

CITY OF DELAWARE PARK

T&R PROPERTIES, INC.

CANAL STREET

ONYX LANE

TOPAZ COURT

AMETHYST COURT

STEEPLECHASE STREET

STEEPLECHASE COURT

BOULDER DRIVE

(11) SILVER LINDEN

(12) IMPERIAL HONEY LOCUST

(9) SWAMP OAK

(8) SWAMP WHITE OAK

(6) ZELKOVA SERRATA

(7) BLACK TUPELO

(8) BLACK TUPELO

(12) SAWTOOTH OAK

(6) ZELKOVA SERRATA

(6) BLACK TUPELO

RAILROAD

MATCHLINE - SEE LEFT

MATCHLINE - SEE RIGHT

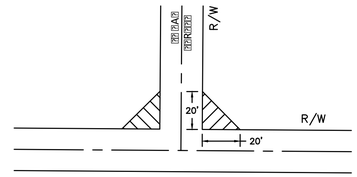
STREET TREE PLAN

SCALE: 1" = 60'

N

60 0 60 120

SCALE IN FEET



SIGHT DISTANCE TRIANGLE

NOT TO SCALE

NOTES: NO STREET TREES ARE TO BE PLANTED IN THE SIGHT TRIANGLE PER CITY OF DELAWARE ZONING CODE SECTION 1149.06.

NO STREET TREES ARE TO BE PLANTED WITHIN 10' OF FIRE HYDRANTS.

STREET TREES ARE TO BE PLANTED PER RDWD-19.3, RDWD-33.1 AND RDWD-33.2.

LEGEND

PROPOSED DECIDUOUS STREET TREE (1-3/4" MIN CALIPER AT TIME OF PLANTING)

DECIDUOUS STREET TREE (EXISTING OR PROPOSED WITH WILLOWBROOK SECTION 2 PHASE 3)

GENERAL NOTES:

1. ALL NURSERY STOCK SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMAN STANDARDS-ANSI Z60.1.
2. CONFIRM LOCATIONS OF ALL UTILITIES AND SUBSURFACE DRAIN LINES PRIOR TO TREE INSTALLATION.
3. TREE LOCATIONS SHALL BE LOCATED BY CONTRACTOR AND APPROVED BY THE SHADE TREE COMMISSION PRIOR TO INSTALLATION.
4. CONTRACTOR SHALL SEE OR SOD ALL AREAS DISTURBED DURING CONSTRUCTION.
5. CONTRACTOR SHALL THOROUGHLY WATER ALL LANDSCAPE PLANT MATERIAL AND MULCHED AREA AT TIME OF PLANTING THROUGH THE PERIOD OF ADJUSTMENT.
6. CONTRACTOR TO SLIGHTLY ADJUST TREE LOCATIONS AS NECESSARY TO AVOID UTILITIES.
7. TREES SHALL BE SELECTED FROM REGIONAL NURSERY GROWERS.

STREET TREES:

STREET TREES ARE TO BE PLANTED IN ACCORDANCE OF CITY OF DELAWARE ZONING CODE CHAPTER 1166.

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REV	DATE	BY	CHKD	DESCRIPTION
.	.	.		.

TITLE: STREET TREE PLAN
WILLOWBROOK SECTION 3 STREET, STORM & WATER IMPROVEMENTS
MEDROCK, LLC CITY OF DELAWARE, OHIO

SALASO'BRIEN

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DRAWN	CHECKED	APPROVED	SCALE
FGS	MES	–	1" = 60'

CONTRACT NO: R012757

DATE: 01/13/2020

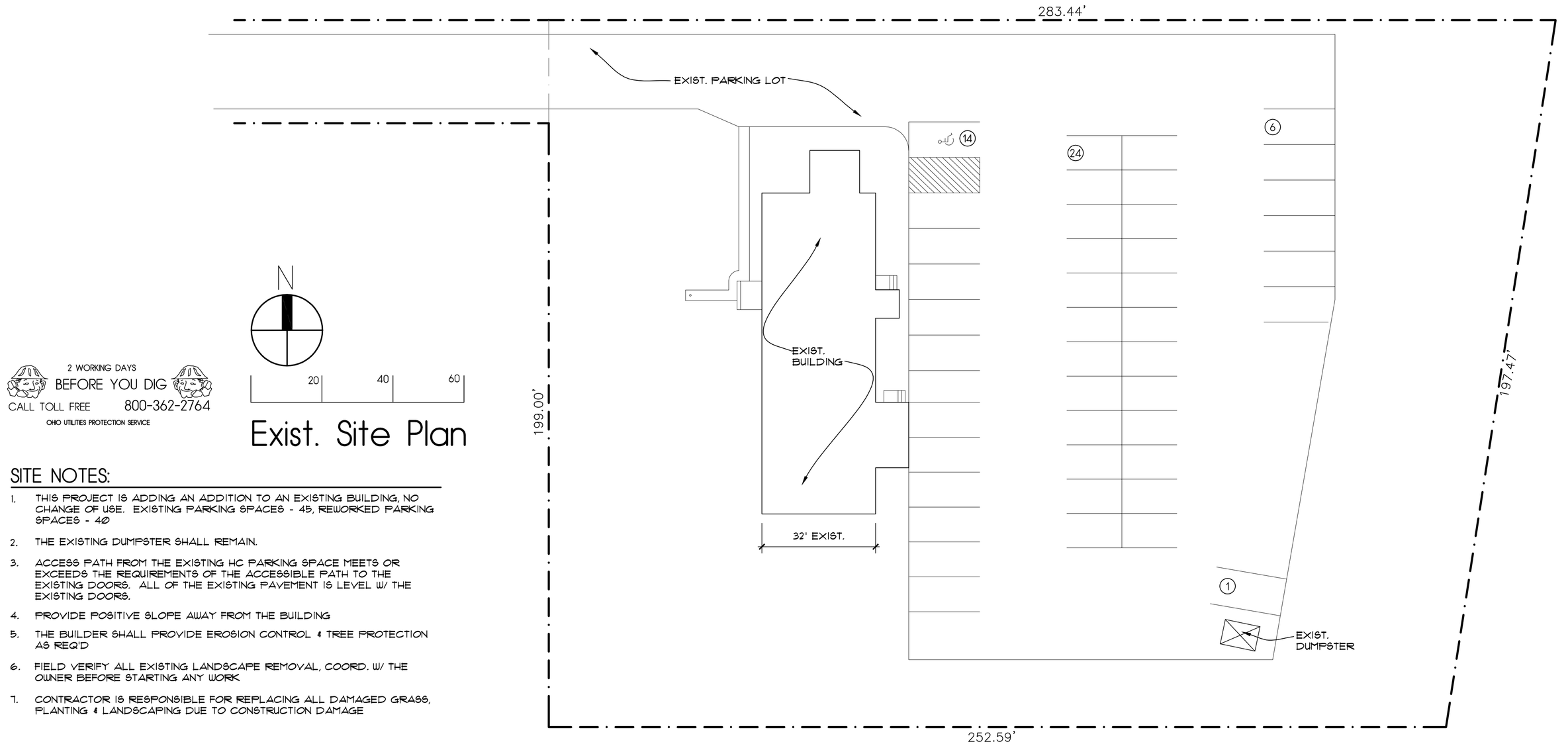
DRAWING NO: STR-017

REVISION: –

EST 1808
CITY OF
DELAWARE
OHIO

PLAN REVIEW B:

VFW Post #3297



2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE 800-362-2764
OHIO UTILITIES PROTECTION SERVICE

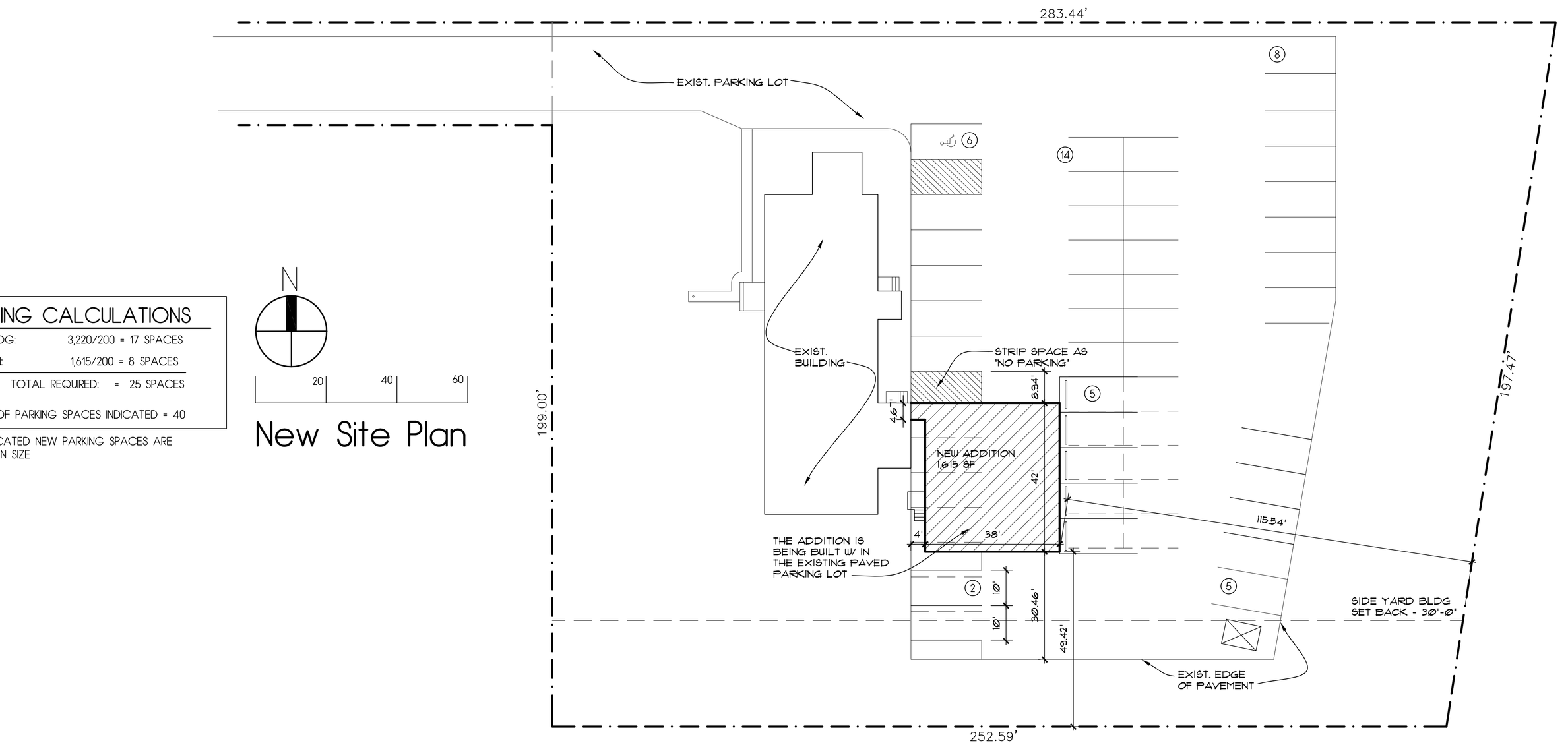
N

20 40 60

Exist. Site Plan

SITE NOTES:

1. THIS PROJECT IS ADDING AN ADDITION TO AN EXISTING BUILDING, NO CHANGE OF USE. EXISTING PARKING SPACES - 45, REWORKED PARKING SPACES - 40
2. THE EXISTING DUMPSTER SHALL REMAIN.
3. ACCESS PATH FROM THE EXISTING HC PARKING SPACE MEETS OR EXCEEDS THE REQUIREMENTS OF THE ACCESSIBLE PATH TO THE EXISTING DOORS. ALL OF THE EXISTING PAVEMENT IS LEVEL W/ THE EXISTING DOORS.
4. PROVIDE POSITIVE SLOPE AWAY FROM THE BUILDING
5. THE BUILDER SHALL PROVIDE EROSION CONTROL & TREE PROTECTION AS REQ'D
6. FIELD VERIFY ALL EXISTING LANDSCAPE REMOVAL, COORD. W/ THE OWNER BEFORE STARTING ANY WORK
7. CONTRACTOR IS RESPONSIBLE FOR REPLACING ALL DAMAGED GRASS, PLANTING & LANDSCAPING DUE TO CONSTRUCTION DAMAGE



PARKING CALCULATIONS

EXIST. BLDG:	3,220/200 = 17 SPACES
ADDITION:	1,615/200 = 8 SPACES
TOTAL REQUIRED:	= 25 SPACES

NUMBER OF PARKING SPACES INDICATED = 40

ALL INDICATED NEW PARKING SPACES ARE 10' x 20' IN SIZE

N

20 40 60

New Site Plan

CLARKE ARCHITECTS, INC.

7844 Flint Rd.
Columbus, Ohio 43235-6407
Office: 614-791-1200
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jclarke@clarkearchitects.com

STATE OF OHIO
JAMES W. CLARKE
9209924
REGISTERED ARCHITECT

James W. Clarke
License No. 9209924
Exp. Date 12/31/2019

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DATE: OCTOBER 8, 2019

REVISION DATES: NOVEMBER 5, 2019 /1

PROJECT:

VFW POST #3297
REED MILLER POST
481 SOUTH SANDUSKY STREET
DELAWARE, OHIO 43015

PROJECT NUMBER: CA1201843

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

S1

NAME: CLARKE Z:\COMMERCIAL\VFW - DELAWARE\REV 1 - DWGS\02-0051-SITE.DWG DATE: NOV 05, 2019 TIME: 4:58 PM

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CITY OF
DELAWARE
OHIO

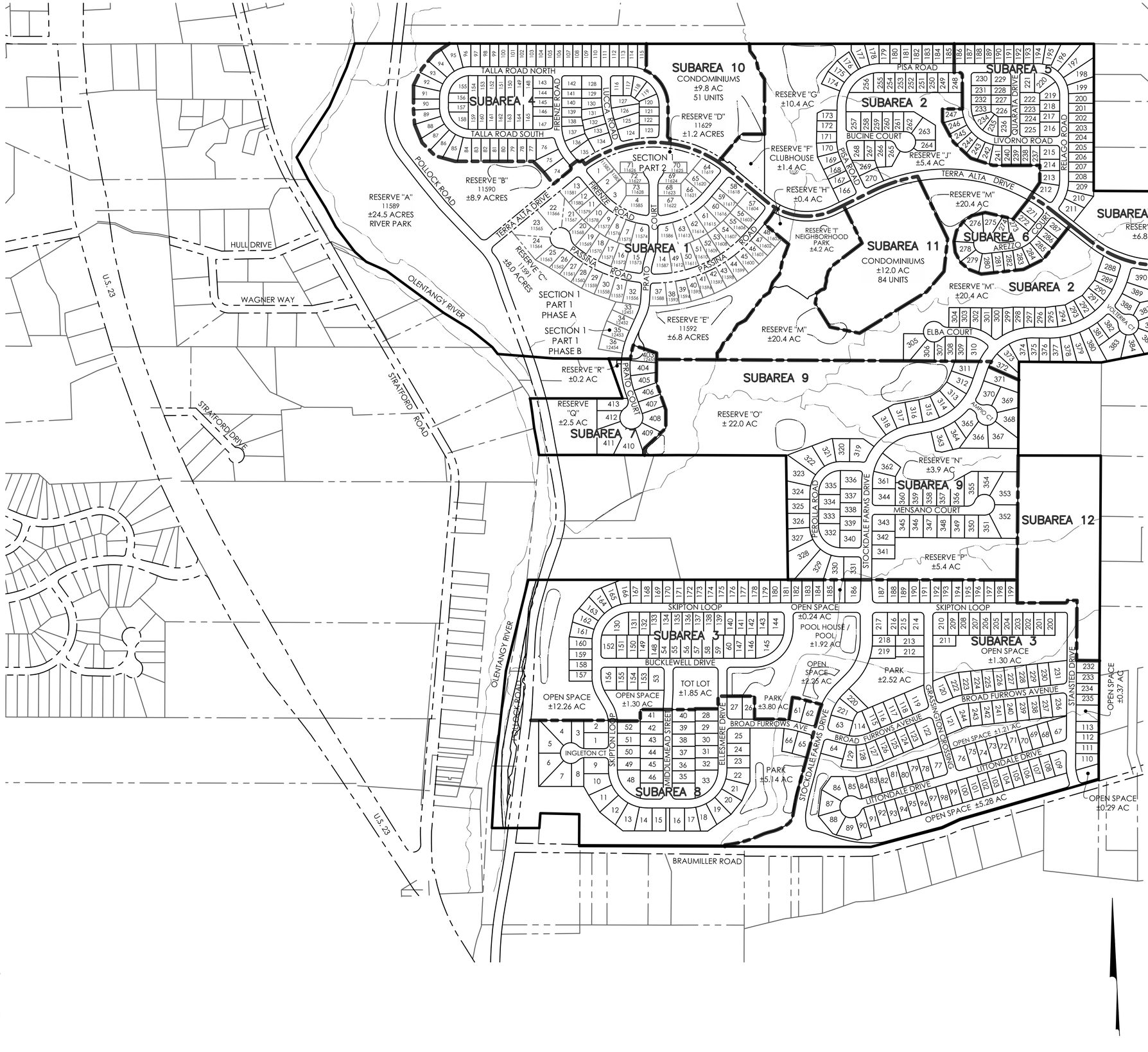
PLAN REVIEW C:
Terra Alta/Stockdale Farms

TERRA ALTA / STOCKDALE FARMS

City of Delaware. Delaware County . Ohio

AMENDED PRELIMINARY DEVELOPMENT PLAN

OVERALL SUBAREA PLAN



OVERALL DEVELOPMENT STANDARDS

SUB-AREA 1 (EXISTING DEVELOPMENT), 2, 3 & 6

MINIMUM LOT WIDTH:	70 FEET (AT THE BUILDING LINE)
MINIMUM LOT AREA:	9,100 SQ. FT.
MINIMUM SETBACKS	
FRONT YARD / BUILDING LINE:	30 FEET
SIDE YARD:	10 FEET EACH SIDE
REAR YARD:	30 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET

SUB-AREA 4

MINIMUM LOT WIDTH:	58 FEET (AT THE BUILDING LINE)
MINIMUM LOT AREA:	7,540 SQ. FT.
MINIMUM SETBACKS	
FRONT YARD / BUILDING LINE:	30 FEET
SIDE YARD:	6 FEET EACH SIDE
REAR YARD:	30 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET

SUB-AREA 5

MINIMUM LOT WIDTH:	62 FEET (AT THE BUILDING LINE)
MINIMUM LOT AREA:	8,060 SQ. FT.
MINIMUM SETBACKS	
FRONT YARD / BUILDING LINE:	30 FEET
SIDE YARD:	6 FEET EACH SIDE
REAR YARD:	30 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET

SUB-AREA 7 & 8

MINIMUM LOT WIDTH:	80 FEET (AT THE BUILDING LINE)
MINIMUM LOT AREA:	10,400 SQ. FT.
MINIMUM SETBACKS	
FRONT YARD / BUILDING LINE:	30 FEET
SIDE YARD:	10 FEET EACH SIDE
REAR YARD:	35 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET

SUB-AREA 9

MINIMUM LOT WIDTH:	90 FEET (AT THE BUILDING LINE)
MINIMUM LOT AREA:	12,600 SQ. FT.
MINIMUM SETBACKS	
FRONT YARD / BUILDING LINE:	30 FEET
SIDE YARD:	10 FEET EACH SIDE
REAR YARD:	30 FEET
MAXIMUM BUILDING HEIGHT:	35 FEET

SUB-AREA 10 & 11 (CONDOMINIUMS OR FEE SIMPLE CLUSTER UNITS)
SUB-AREA 12 (CLUSTER HOMES)

GRAPHIC SCALE

0 150 300 600

1 inch = 300 feet

PREPARED FOR:

TERRA ALTA LLC.
142 WEST SCHROCK ROAD
WESTERVILLE, OH 43081

PREPARED BY:

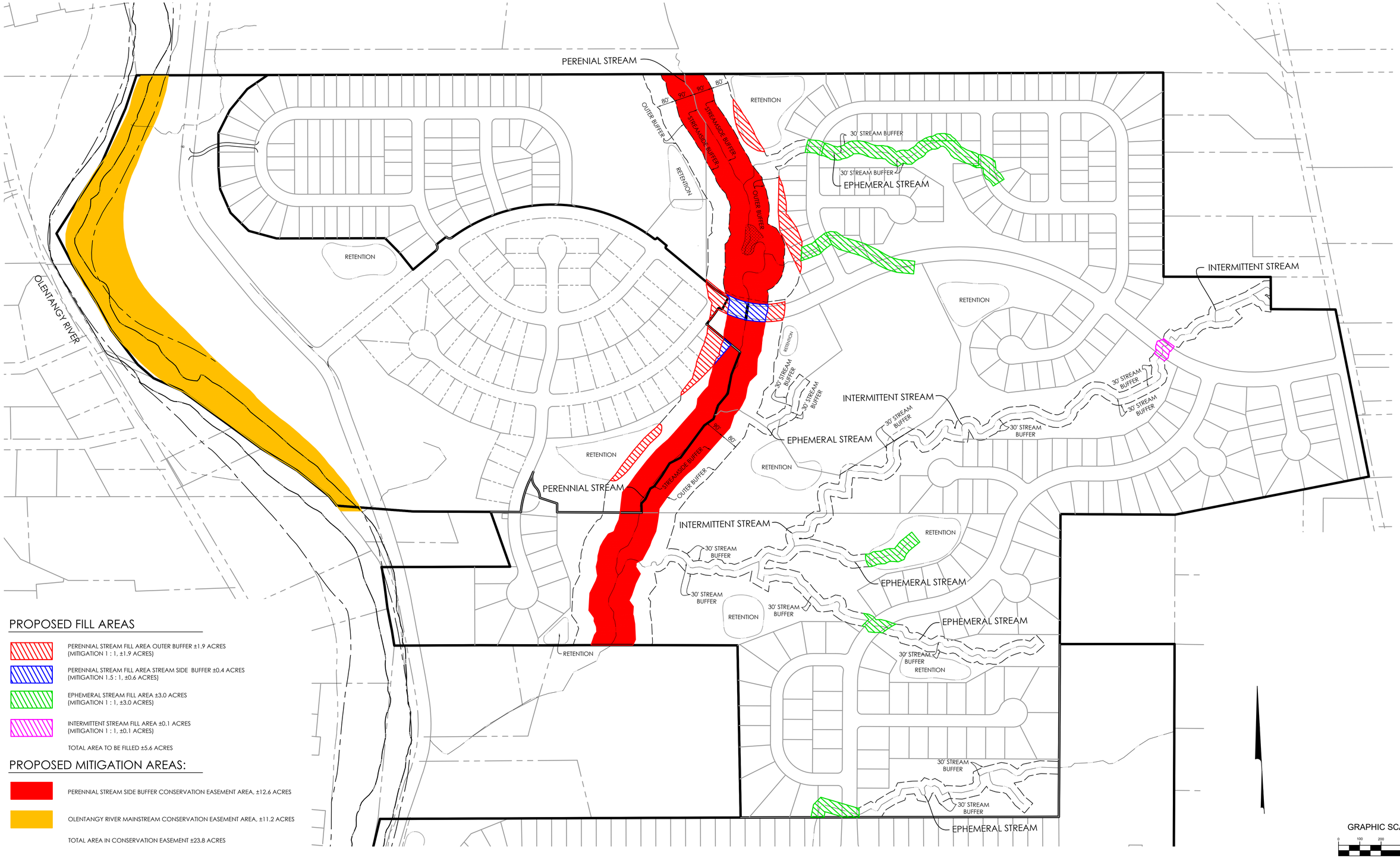
EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 fax: 614.775.4800
M C M X X V I

DATE:	FEBRUARY 5, 2020
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SHEET 2 / 13

20180057

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PROPOSED FILL AREAS

- PERENNIAL STREAM FILL AREA OUTER BUFFER ±1.9 ACRES (MITIGATION 1 : 1, ±1.9 ACRES)
- PERENNIAL STREAM FILL AREA STREAM SIDE BUFFER ±0.4 ACRES (MITIGATION 1.5 : 1, ±0.6 ACRES)
- EPHEMERAL STREAM FILL AREA ±3.0 ACRES (MITIGATION 1 : 1, ±3.0 ACRES)
- INTERMITTENT STREAM FILL AREA ±0.1 ACRES (MITIGATION 1 : 1, ±0.1 ACRES)

TOTAL AREA TO BE FILLED ±5.6 ACRES

PROPOSED MITIGATION AREAS:

- PERENNIAL STREAM SIDE BUFFER CONSERVATION EASEMENT AREA, ±12.6 ACRES
- OLENTANGY RIVER MAINSTREAM CONSERVATION EASEMENT AREA, ±11.2 ACRES

TOTAL AREA IN CONSERVATION EASEMENT ±23.8 ACRES

GRAPHIC SCALE

0 100 200 400

1 inch = 200 feet

REVISIONS	
DATE	DESCRIPTION

EMH&T
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll free: 888.775.3648
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TERRA ALTA LLC.
142 WEST SCHROCK ROAD
WESTERVILLE, OH 43081

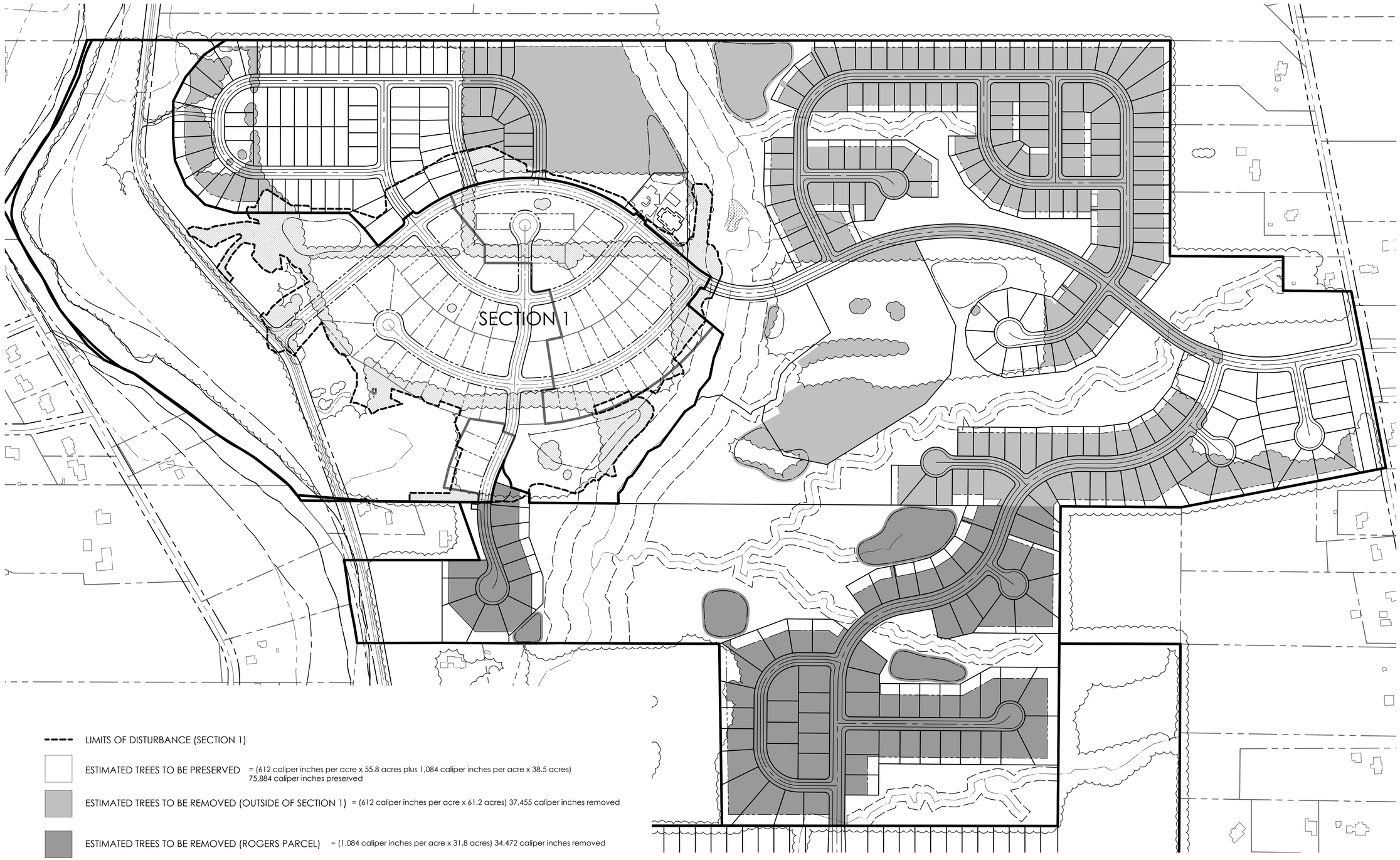
CITY OF DELAWARE . DELAWARE COUNTY . OHIO
PRELIMINARY PLAT (AMENDED)
FOR
TERRA ALTA
MITIGATION PLAN

LOCATED IN:
FARM LOT P IN SECTION 1, TOWNSHIP 4, RANGE 19
UNITED STATES MILITARY LANDS
TOWNSHIP OF DELAWARE, COUNTY OF DELAWARE, STATE OF OHIO

Date	Job No.
FEBRUARY 5, 2020	20180057
Scale	Sheet
1"=200'	9/9

PRELIMINARY PLAT FOR TERRA ALTA

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LIMITS OF DISTURBANCE (SECTION 1)

ESTIMATED TREES TO BE PRESERVED = (612 caliper inches per acre x 55.8 acres plus 1,084 caliper inches per acre x 38.5 acres) 75,884 caliper inches preserved

ESTIMATED TREES TO BE REMOVED (OUTSIDE OF SECTION 1) = (612 caliper inches per acre x 61.2 acres) 37,455 caliper inches removed

ESTIMATED TREES TO BE REMOVED (ROGERS PARCEL) = (1,084 caliper inches per acre x 31.8 acres) 34,472 caliper inches removed

ESTIMATED TREES TO BE REMOVED (WITHIN SECTION 1) = 12.8 acres, 692 caliper inches (west, east and south piles)

TOTAL NUMBER OF TREES TO BE REMOVED = 37,210 caliper inches plus 33,713 caliper inches plus 692 caliper inches = 71,615 caliper inches

NOTES:
1. The average number of caliper inches per acre is 612 (4,896 total inches / 8 sample areas) for the estimated trees removed outside Section 1 and within the Original Terra Alta Development and 1,084 (8,672 total inches / 8 sample areas) is within the Rogers Tract.
2. Estimated trees to be removed within Section 1 based on Tree Survey prepared by Stephan Carbonara.

GRAPHIC SCALE
0 100 200 400
1 inch = 200 feet

TERRA ALTA
City of Delaware. Delaware County . Ohio

AMENDED PRELIMINARY DEVELOPMENT PLAN

TREE REMOVAL PLAN

PREPARED FOR:

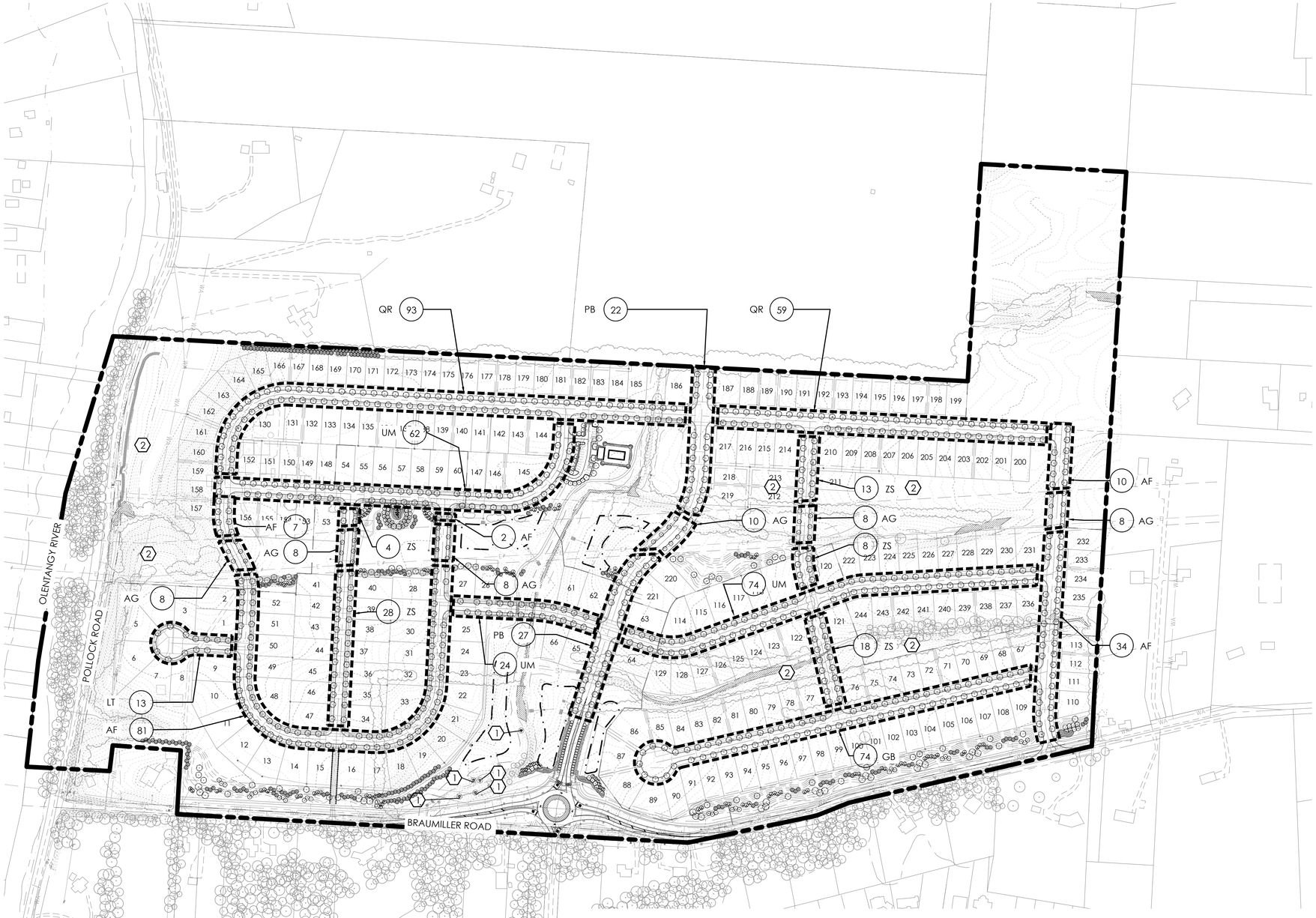
TERRA ALTA LLC.
142 WEST SCHROCK ROAD
WESTERVILLE, OH 43081

PREPARED BY:

EMH&T
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5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Fax: 614.775.4800
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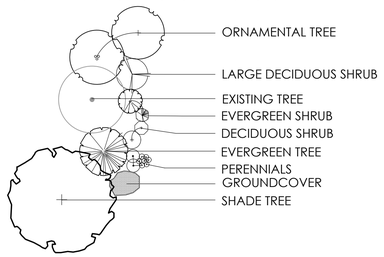
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SHEET 13/13
20180057



PLANT KEY TYPICALS

SEE PLANT LIST FOR SPECIFIC PLANT SPECIES



CONSTRUCTION NOTES:

1. LANDSCAPE LIGHTING - LOW VOLTAGE LED BY KICHLER 12.4 WATT, 15752 AZT
2. MEADOW SEED MIX

PLANT LIST

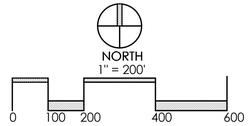
(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
134	AF	Acer x freemanii 'Sienna Glen'	SIENNA GLEN MAPLE	1 ¾" CAL.	B&B	MATCH FORM
*50	AG	Acer ginnala	AMUR MAPLE	1 ¾" CAL.	B&B	MATCH FORM
74	GB	Ginkgo biloba 'Autumn Gold'	AUTUMN GOLD GINKGO	1 ¾" CAL.	B&B	MATCH FORM
13	LT	Liriodendron tulipifera	TULIPTREE	1 ¾" CAL.	B&B	MATCH FORM
49	PB	Platanus x acerifolia 'Bloodgood'	BLOODGOOD LONDON PLANETREE	1 ¾" CAL.	B&B	MATCH FORM
152	QR	Quercus rubra	RED OAK	1 ¾" CAL.	B&B	MATCH FORM
160	UM	Ulmus 'Morton'	MORTON ELM	1 ¾" CAL.	B&B	MATCH FORM
71	ZS	Zelkova serrata 'Green Vase'	GREEN VASE ZELKOVA	1 ¾" CAL.	B&B	MATCH FORM

*SPECIES / LOCATION TO BE APPROVED BY ELECTRIC EASEMENT OWNER

GENERAL NOTES

1. TREES ARE TO BE MEASURED AT BREAST HEIGHT



REVISIONS	

STREET TREE PLAN

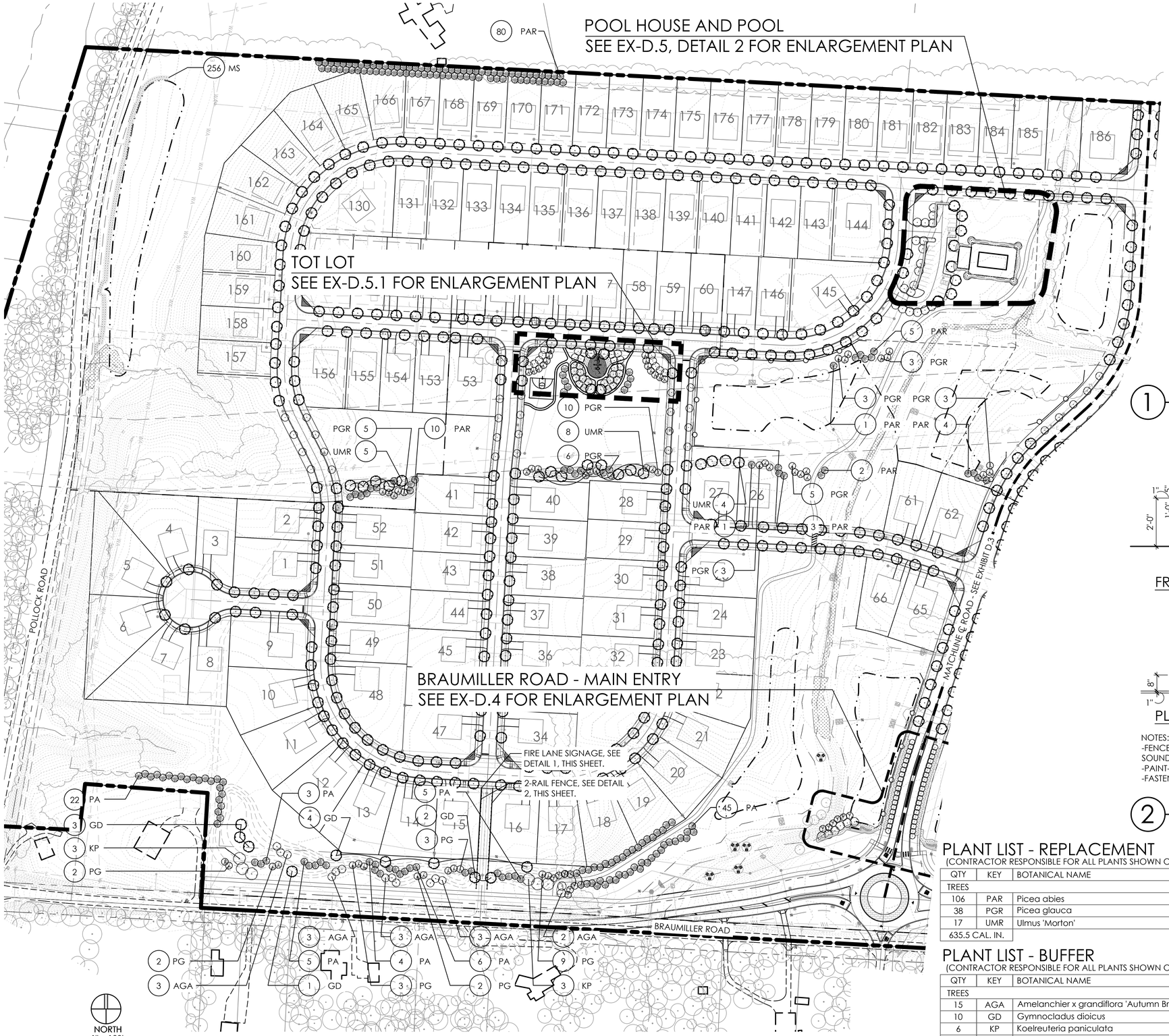
STOCKDALE FARMS

PREPARED FOR
LYH, LLC
5695 AVERY ROAD
DUBLIN, OH 43016

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LAND PLANNING ✦ LANDSCAPE ARCHITECTURE
243 N. 5th Street Suite 401 Columbus, OH 43215
p (614) 487-1964 www.farisplanninganddesign.com

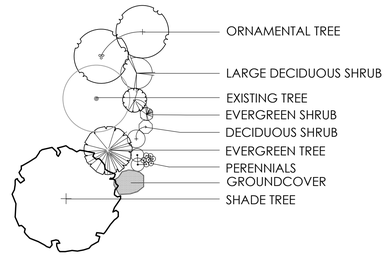
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PROJECT	15027
SHEET	

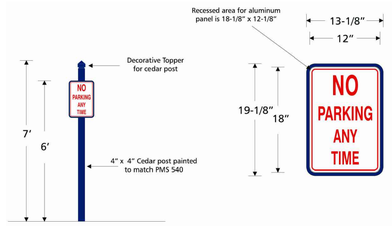
EX-D.1



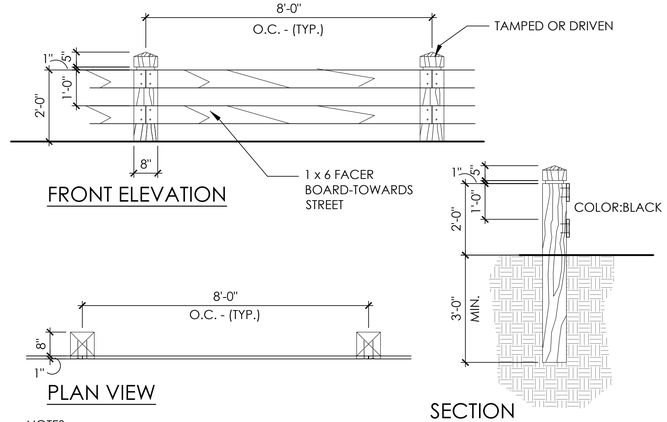
PLANT KEY TYPICALS

SEE PLANT LIST FOR SPECIFIC PLANT SPECIES





1 EMERGENCY ACCESS FIRE LANE SIGNAGE
(OR PER DELAWARE FIRE DEPT. STANDARD)



NOTES:
-FENCE BOARDS- BOARDS SHALL BE 1" X 6" X 16' POPLAR, PRESSURE TREATED. THE BOARDS SHALL BE SOUND, STRAIGHT AND FREE OF KNOTS AND SHAKES
-PAINT-PAINT SHALL BE A SEMI GLOSS BLACK
-FASTENERS-NAILS-10D PLAIN SHANK BOX GALVANIZED

2 2-RAIL FENCE
N.T.S.

PLANT LIST - REPLACEMENT

(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
106	PAR	Picea abies	NORWAY SPRUCE	8' HT.	B&B	
38	PGR	Picea glauca	WHITE SPRUCE	8' HT.	B&B	
17	UMR	Ulmus 'Morton'	MORTON ELM	3½" CAL.	B&B	
635.5 CAL. IN.						

PLANT LIST - BUFFER

(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
15	AGA	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	6' HT.	B&B	CLUMP
10	GD	Gymnocladus dioicus	KENTUCKY COFFEETREE	1¾" CAL.	B&B	
6	KP	Koelreuteria paniculata	GOLDEN RAIN TREE	1¾" CAL.	B&B	
90	PA	Picea abies	NORWAY SPRUCE	8' HT.	B&B	
21	PG	Picea glauca	WHITE SPRUCE	8' HT.	B&B	
PERENNIALS / ORNAMENTAL GRASSES						
256	MS	Miscathus sinensis 'Gracillimus'	GRACILLIMUS MAIDEN GRASS	NO. 2	CONT.	

REVISIONS

BUFFER & SCREENING LANDSCAPE PLAN - WESTERN HALF

STOCKDALE FARMS

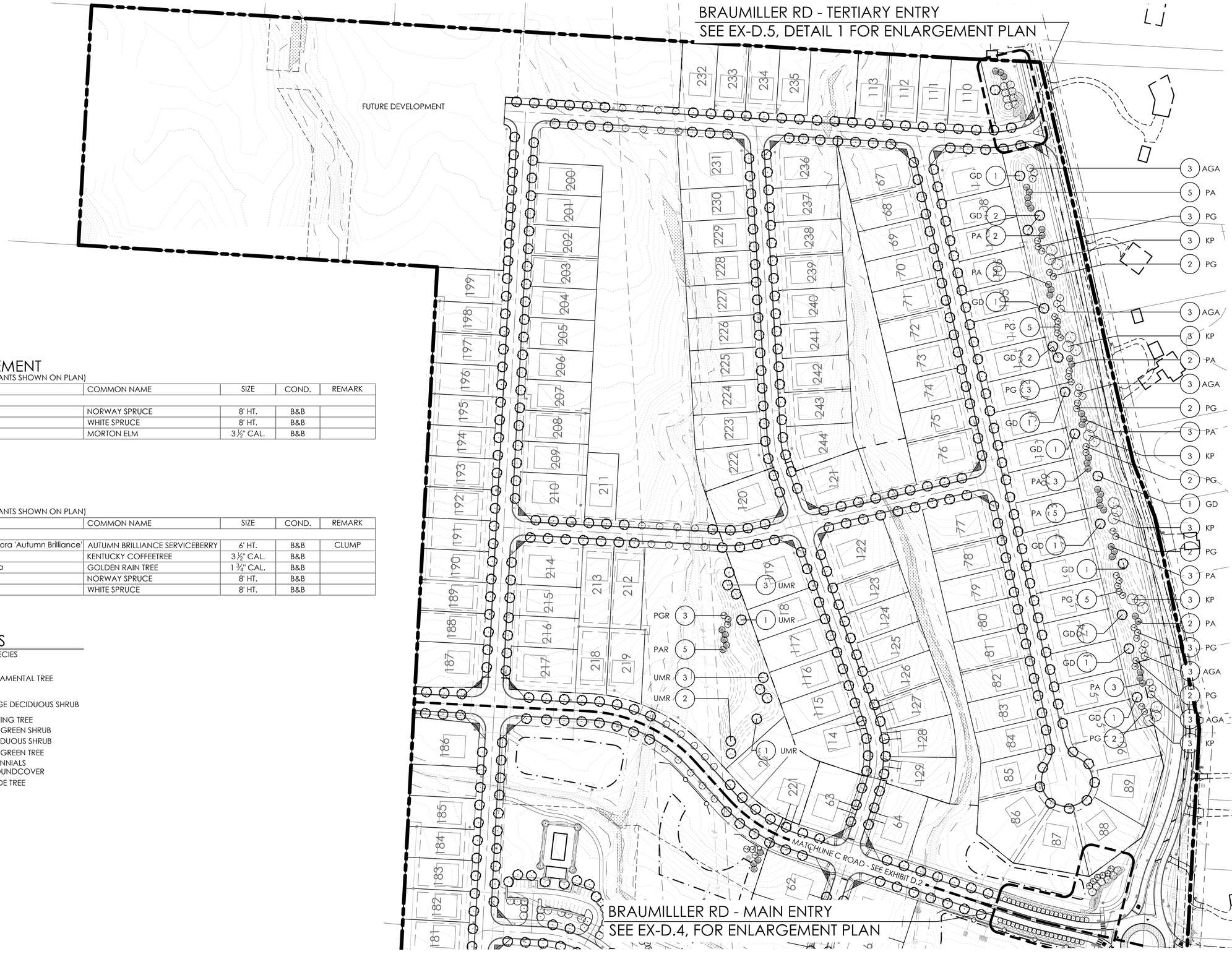
PREPARED FOR
LYH, LLC
5695 AVERY ROAD
DUBLIN, OH 43016

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243 N. 5th Street Suite 401 Columbus, OH 43215
p (614) 487-1964 www.farisplanninganddesign.com

DATE 4/19/2019

PROJECT 15027

EX-D.2



PLANT LIST - REPLACEMENT

(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
5	PAR	Picea abies	NORWAY SPRUCE	8' HT.	B&B	
3	PGR	Picea glauca	WHITE SPRUCE	8' HT.	B&B	
10	UMR	Ulmus 'Morton'	MORTON ELM	3½" CAL.	B&B	
67 CAL. INCHES						

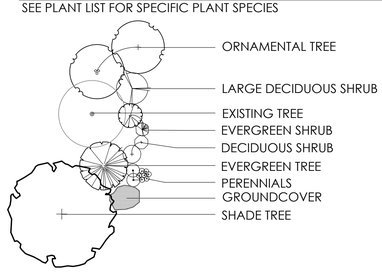
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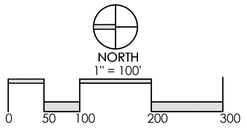
(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
15	AGA	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE SERVICEBERRY	6' HT.	B&B	CLUMP
14	GD	Gymnocladus dioicus	KENTUCKY COFFEETREE	3½" CAL.	B&B	
18	KP	Koelreuteria paniculata	GOLDEN RAIN TREE	1 ¾" CAL.	B&B	
31	PA	Picea abies	NORWAY SPRUCE	8' HT.	B&B	
31	PG	Picea glauca	WHITE SPRUCE	8' HT.	B&B	

PLANT KEY TYPICALS

SEE PLANT LIST FOR SPECIFIC PLANT SPECIES





REVISIONS

BUFFER & SCREENING LANDSCAPE PLAN - EASTERN HALF

STOCKDALE FARMS

PREPARED FOR

LYH, LLC

5695 AVERY ROAD

DUBLIN, OH 43016

Faris Planning & Design

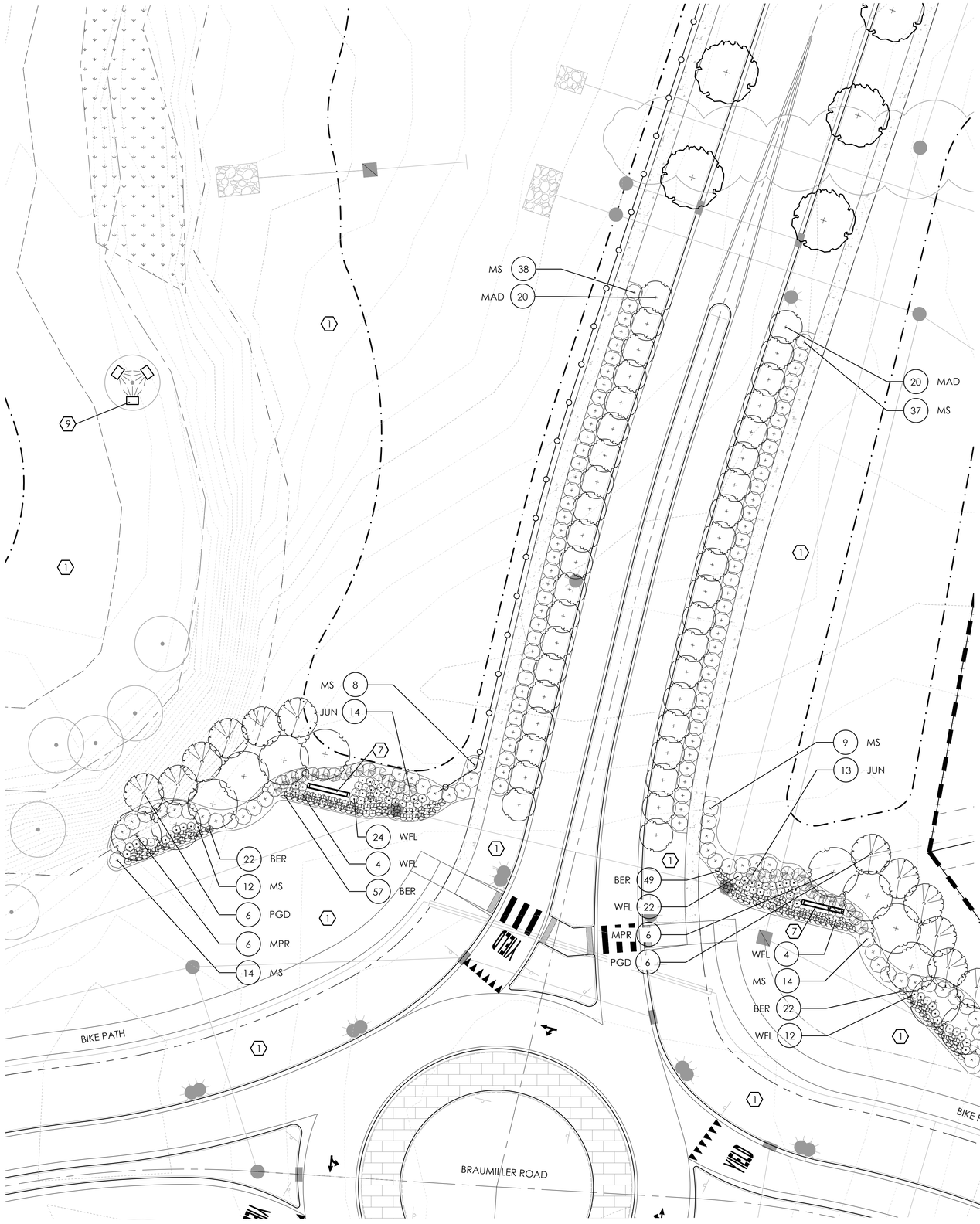
LAND PLANNING ✦ LANDSCAPE ARCHITECTURE

243 N. 5th Street Suite 401 Columbus, OH 43215

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DATE	4/19/2019
PROJECT	15027

EX-D.3



PLANT LIST - REPLACEMENTS

(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
40	MAD	MALUS 'ADIRONDACK'	ADIRONDACK CRABAPPLE	3½" CAL.	B&B	MATCH FORM
12	MPR	MALUS 'PRAIRIFIRE'	PRAIRIFIRE CRABAPPLE	3½" CAL.	B&B	MATCH FORM
12	PGD	PICEA GLAUCA 'DENSATA'	WHITE SPRUCE	8' HT.	B&B	
230 CAL. IN.						

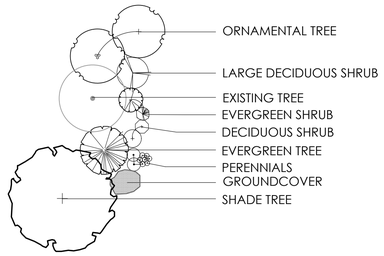
PLANT LIST - BUFFER

(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
SHRUBS						
150	BER	BERBERIS THUNBERGII 'BOGOZAM'	BONANZA GOLD BARBERRY	12" SPR.	CONT.	
27	JUN	JUNIPERUS VIRGINIANA 'GREY OWL'	GREY OWL JUNIPER	18" SPR.	B&B	
66	WFL	WEIGELA FLORIDA 'TANGO'	TANGO WEIGELA	18" HGT.	CONT.	
PERENNIALS / ORNAMENTAL GRASSES						
132	MS	MISCANTHUS SINENSIS 'GRACILLIMUS'	GRACILLIMUS MAIDEN GRASS	NO. 2	CONT.	

PLANT KEY TYPICALS

SEE PLANT LIST FOR SPECIFIC PLANT SPECIES



CONSTRUCTION NOTES:

1. LAWN AREA, PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES
2. NOT USED
3. CONCRETE PAD
4. STONE BENCH, SEE DETAIL 5, SHEET EX.-D.6
5. GOLD DUST AGGREGATE PAVING, SEE DETAIL, SHEET EX.-D.5
6. SHELTER, SEE DETAIL 5, SHEET EX.-D.7
7. MAIN ENTRY SIGN, SEE DETAILS, 1,2, & 4, SHEET EX.-D.6
8. STOCKPILED GRANITE BOULDER SLOPE REINFORCEMENT
9. LANDSCAPE LIGHTING - LOW VOLTAGE LED BY KICHLER 12.4 WATT, 15752 AZT

NORTH
1" = 20'
0 10 20 40 60

REVISIONS	

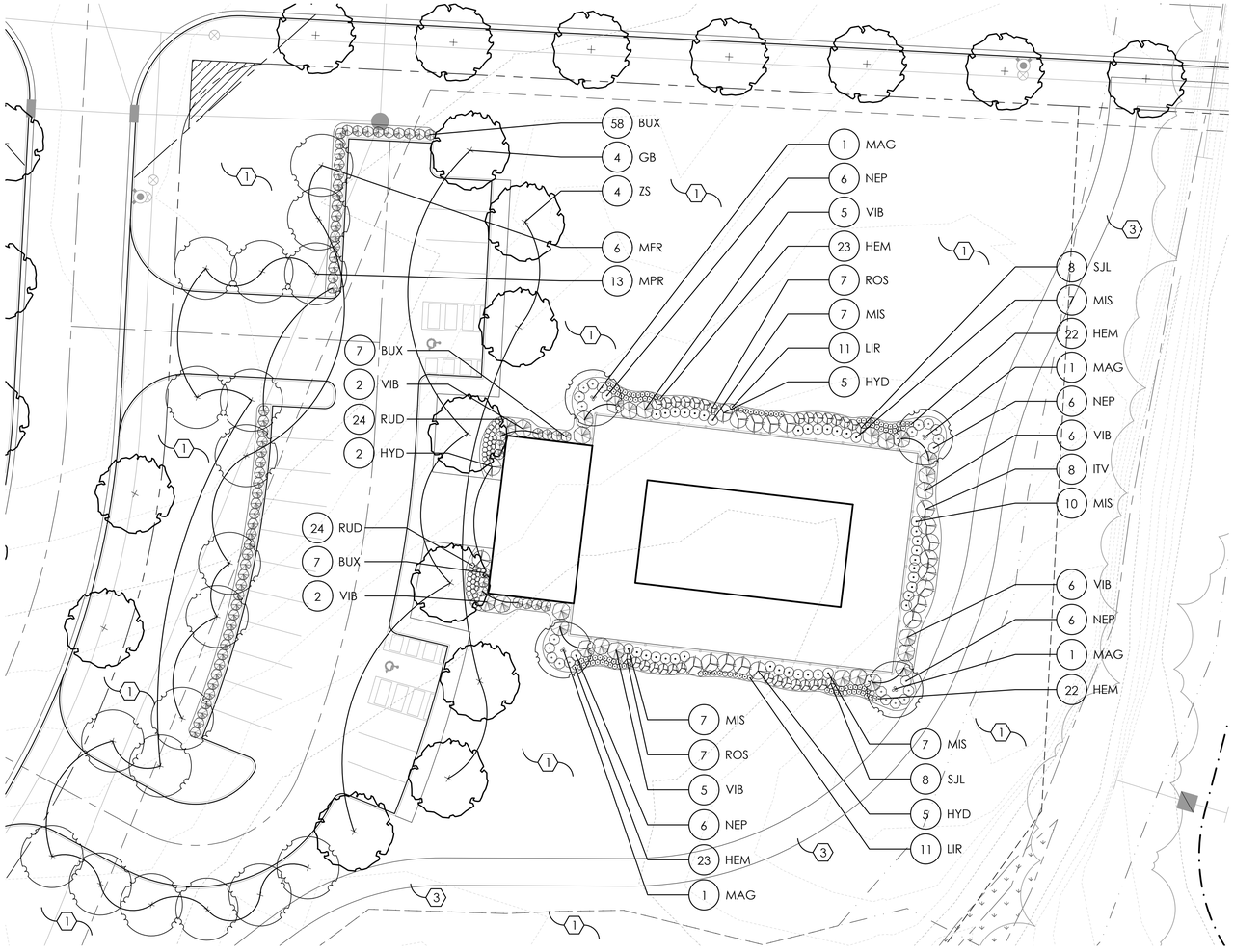
BRAUMILLER ROAD - MAIN ENTRY ENLARGEMENT PLAN

STOCKDALE FARMS
PREPARED FOR
LYH, LLC
5695 AVERY ROAD
DUBLIN, OH 43016

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DATE	4/19/2019
PROJECT	15027
SHEET	

EX-D.4

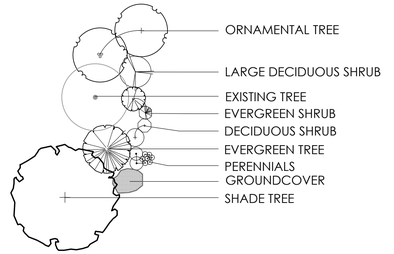


2 POOL HOUSE AND POOL ENLARGEMENT PLAN
SCALE: 1" = 20'

CONSTRUCTION NOTES:

1. LAWN AREA, PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES
3. ASPHALT PATH
5. SECONDARY SIGN, SEE DETAIL 3 AND 4, SHEET EX.-D.6

PLANT KEY TYPICALS
SEE PLANT LIST FOR SPECIFIC PLANT SPECIES

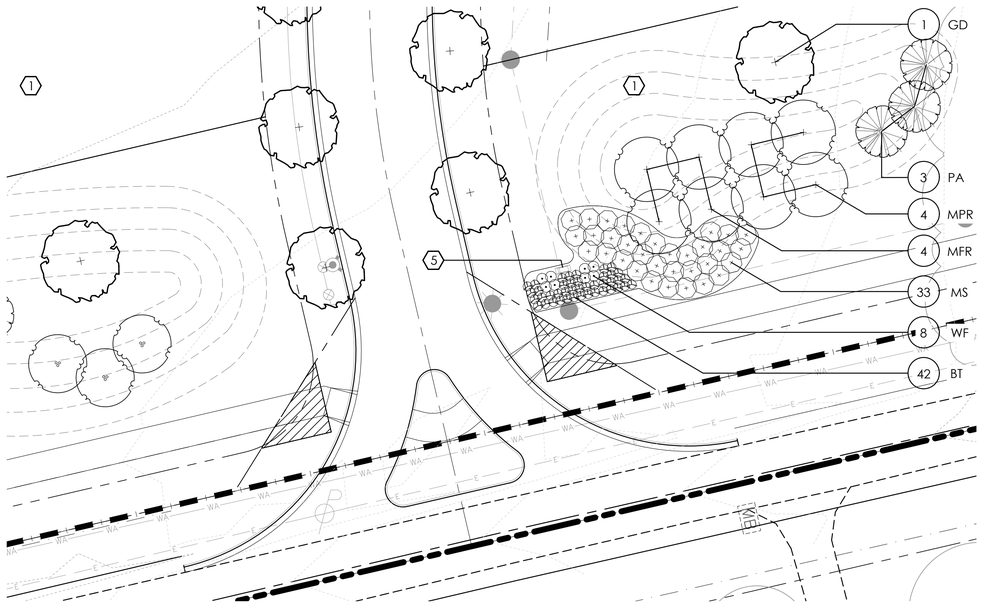


PLANT LIST - REPLACEMENT
(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
4	MFR	Malus floribunda	JAPANESE CRABAPPLE	3½" CAL.	B&B	MATCH FORM
4	MPR	Malus 'Prairifire'	PRAIRIFIRE CRABAPPLE	3½" CAL.	B&B	MATCH FORM
28 CAL. INCHES						

PLANT LIST - BUFFER
(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
4	GB	Ginkgo biloba 'Autumn Gold'	AUTUMN GOLD GINKGO	1 ¾" CAL.	B&B	
1	GD	Gymnocladus dioicus	KENTUCKY COFFEETREE	1 ¾" CAL.	B&B	
4	MAG	Magnolia virginiana	SWEET BAY MAGNOLIA	1 ¾" CAL.	B&B	
6	MFR	Malus floribunda	JAPANESE CRABAPPLE	1 ¾" CAL.	B&B	
13	MPR	Malus 'Prairifire'	PRAIRIFIRE CRABAPPLE	1 ¾" CAL.	B&B	
4	ZS	Zelkova serrata 'Green Vase'	GREEN VASE ZELKOVA	1 ¾" CAL.	B&B	
3	PA	Picea abies	NORWAY SPRUCE	8' HT.	B&B	
SHRUBS						
42	BT	Berberis thunbergii 'Bogozam'	BONANZA GOLD BARBERRY	18" SPR.	CONT.	
72	BUX	Buxus 'Green Velvet'	GREEN VELVET BOXWOOD	18" SPR.	CONT.	
12	HYD	Hydrangea quercifolia	OAKLEAF HYDRANGEA	36" HGT.	CONT.	
8	ITV	Itea virginica 'Henry's Garnet'	HENRY'S GARNET SWEETSPIRE	24" HGT.	CONT.	
14	ROS	Rosa x 'Radtko'	DOUBLE KNOCKOUT ROASE	18" HGT.	CONT.	
16	SJL	Spiraea japonica 'Little Princess'	LITTLE PRINCESS SPIREA	18" HGT.	CONT.	
26	VIB	Viburnum dentatum 'Christom' Blue Muffin	BLUE MUFFIN VIBURNUM	36" HGT.	CONT.	
8	WF	Weigela florida 'Tango'	TANGO WEIGELA	24" HGT.	CONT.	
PERENNIALS / ORNAMENTAL GRASSES						
90	HEM	Hemerocallis 'Stella de Oro'	STELLA DE ORO DAYLILY	NO. 1	CONT.	
22	LIR	Liriope muscari 'Silvery Sunproof'	SILVERY SUNPROOF LILYTURF	NO. 1	CONT.	
38	MIS	Miscanthus sinensis 'Adagio'	ADAGIO MAIDEN GRASS	NO. 2	CONT.	
33	MS	Miscanthus sinensis 'Variegatus'	VARIEGATED MAIDEN GRASS	NO. 1	CONT.	
24	NEP	Nepeta x faassenii 'Walker's Low'	WALKER'S LOW CATMINT	NO. 1	CONT.	
48	RUD	Rudbeckia hirta	BLACK EYED SUSAN	NO. 1	CONT.	



1 BRAUMILLER RD - TERTIARY ENTRY ENLARGEMENT PLAN
SCALE: 1" = 20'

REVISIONS	

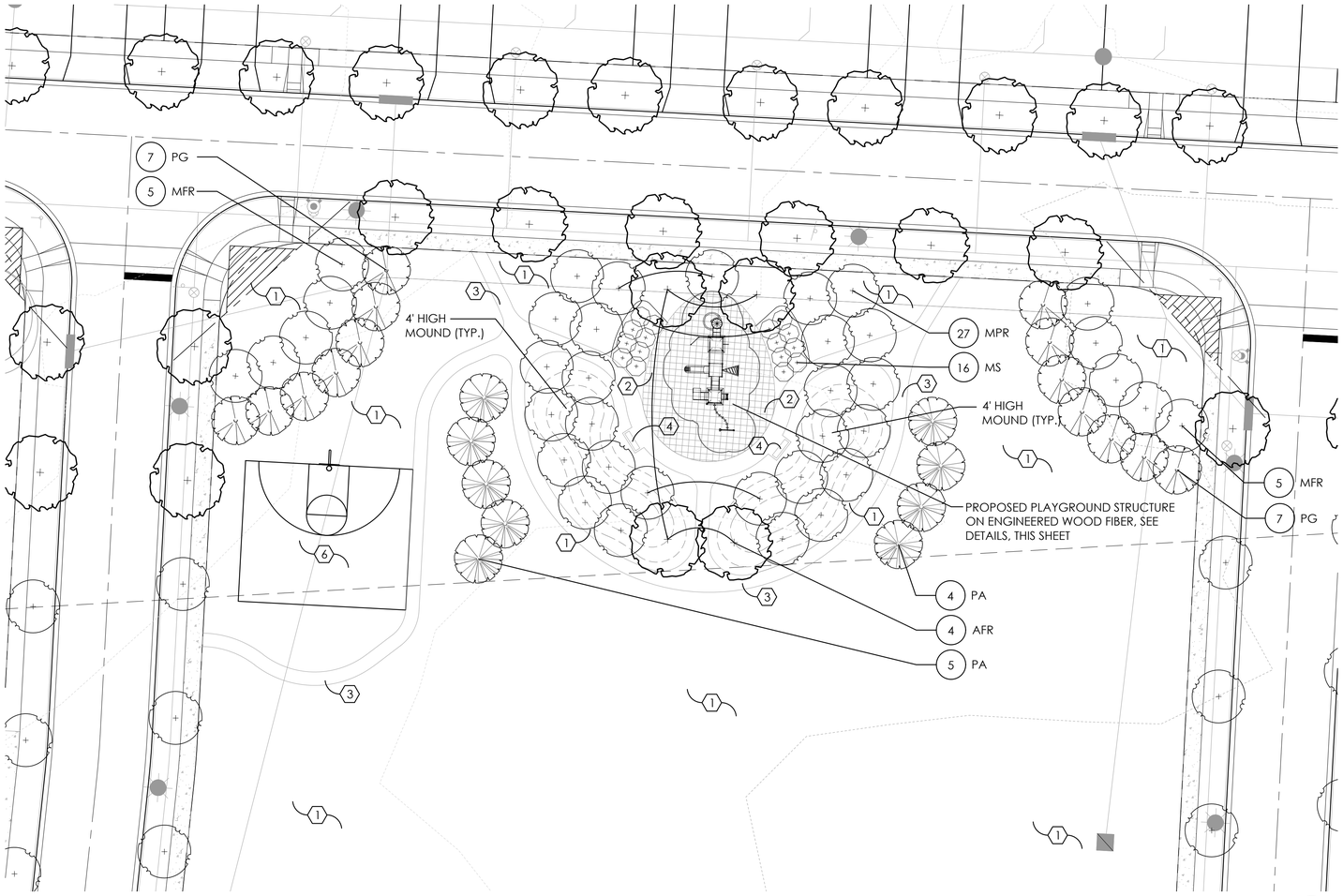
POOL HOUSE / POOL & BRAUMILLER RD
TERTIARY ENTRY
ENLARGEMENT PLANS

STOCKDALE FARMS
PREPARED FOR
LYH, LLC
5695 AVERY ROAD
DUBLIN, OH 43016

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EX-D.5

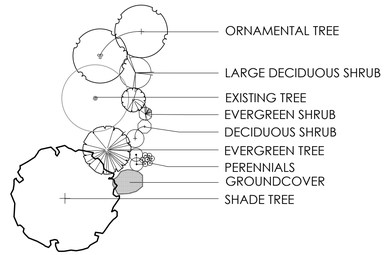


2 TOT LOT ENLARGEMENT PLAN
SCALE: 1" = 20'

CONSTRUCTION NOTES:

1. LAWN AREA, PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES
2. SAFETY SURFACE AREA, PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES, SEE DETAIL, THIS SHEET
3. ASPHALT PATH
4. STONE BENCH, SEE DETAIL 5, SHEET EX.-D.6
6. ASPHALT BASKETBALL HALF-COURT, HIGH SCHOOL REGULATION SIZE

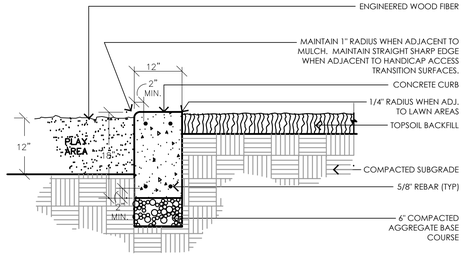
PLANT KEY TYPICALS
SEE PLANT LIST FOR SPECIFIC PLANT SPECIES



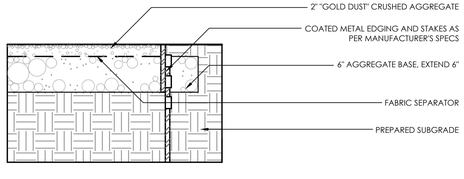


704-S057J
FOR KIDS AGES: **5-12**
PROTECTIVE AREA: **48' X 29'**
SHIPPING WEIGHT: **4,520 LBS**
ELEVATED PLAY ACTIVITIES: **7**
GROUND LEVEL PLAY ACTIVITIES: **2**
PLAY AREA CAPACITY: **55-65**

PROPOSED PLAYGROUND STRUCTURE (OR OWNER APPROVED EQUAL)



ENGINEERED WOOD FIBER
SCALE: N.T.S.



AGGREGATE PAVING WITH METAL EDGE
SCALE: N.T.S.

PLANT LIST - REPLACEMENT
(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
TREES						
4	AFR	Acer x freemanii 'Sienna Glen'	SIENNA GLEN MAPLE	3½" CAL.	B&B	
10	MFR	Malus floribunda	JAPANESE CRABAPPLE	3½" CAL.	B&B	MATCH FORM
27	MPR	Malus 'Prairifire'	PRAIRIFIRE CRABAPPLE	3½" CAL.	B&B	MATCH FORM
9	PA	Picea abies	NORWAY SPRUCE	8' HT.	B&B	
14	PG	Picea glauca	WHITE SPRUCE	8' HT.	B&B	
235.5 CAL. IN.						

PLANT LIST - BUFFER
(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
PERENNIALS / ORNAMENTAL GRASSES						
16	MS	Miscanthus sinensis 'Variegatus'	VARIEGATED MAIDEN GRASS	NO. 1	CONT.	

REVISIONS

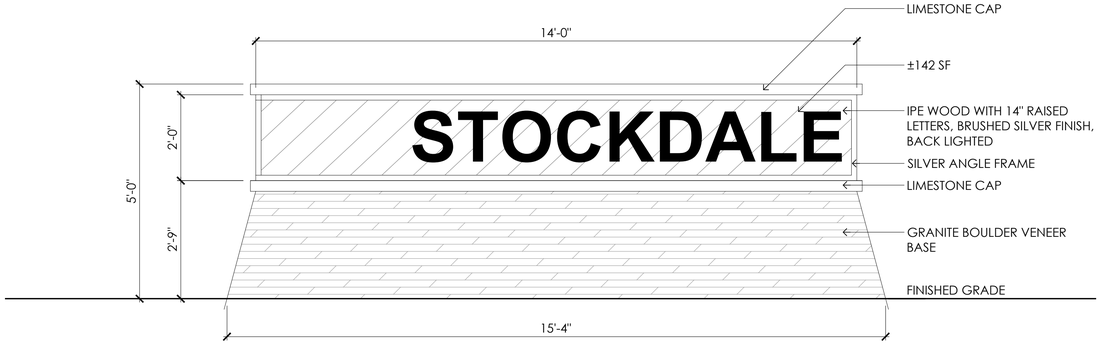
TOT LOT ENLARGEMENT PLAN

STOCKDALE FARMS
PREPARED FOR
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5695 AVERY ROAD
DUBLIN, OH 43016

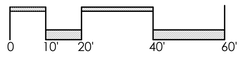
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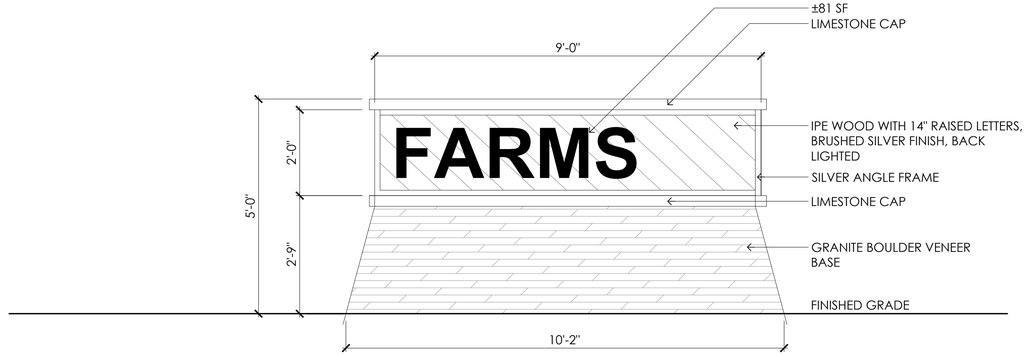
DATE	4/19/2019
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EX-D.5.1

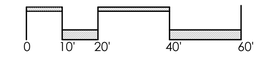


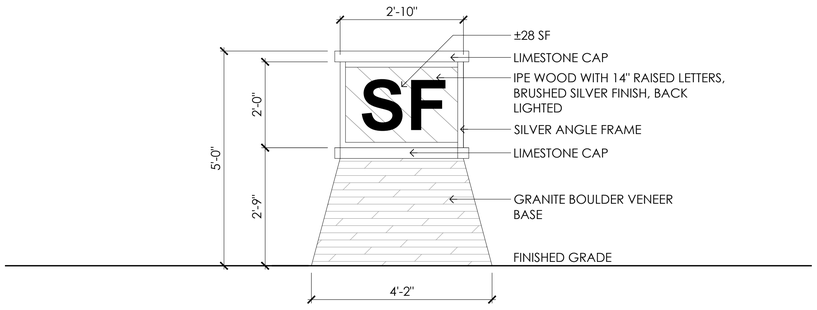
1 BRAUMILLER / POLLOCK ROAD SIGN ELEVATION
STOCKDALE SIGN
SCALE: 1"=20'





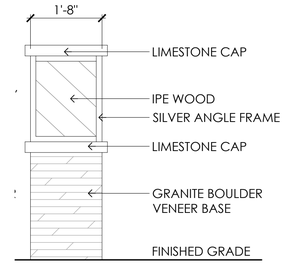
2 BRAUMILLER / POLLOCK ROAD SIGN ELEVATION
FARMS SIGN
SCALE: 1"=20'





3 BRAUMILLER ROAD - SECONDARY ENTRY ELEVATION
SCALE: 1"=20'





SIDE VIEW

4 ENTRY SIGN ELEVATION
SCALE: 1"=20'





GRANITE COBBLE BASE EXAMPLE
SCALE: N.T.S.



5 PROPOSED STONE BENCH
(OR OWNER APPROVED EQUAL)

REVISIONS

SITE ENTRY ELEVATIONS

STOCKDALE FARMS
PREPARED FOR
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EX-D.6

MATCHLINE & ROAD - SEE EXHIBIT E.2

PLAN KEY:

- EXISTING TREE TO BE PRESERVED*
- EXISTING TREE TO BE REMOVED*

*CROSS-REFERENCE TREE NUMBER ON PLAN WITH INDEX ON EX-E.3 FOR MORE INFORMATION REGARDING SPECIFIC TREES.

NORTH
1" = 100'

0 50 100 200 300

REVISIONS

TREE PRESERVATION PLAN - WESTERN HALF

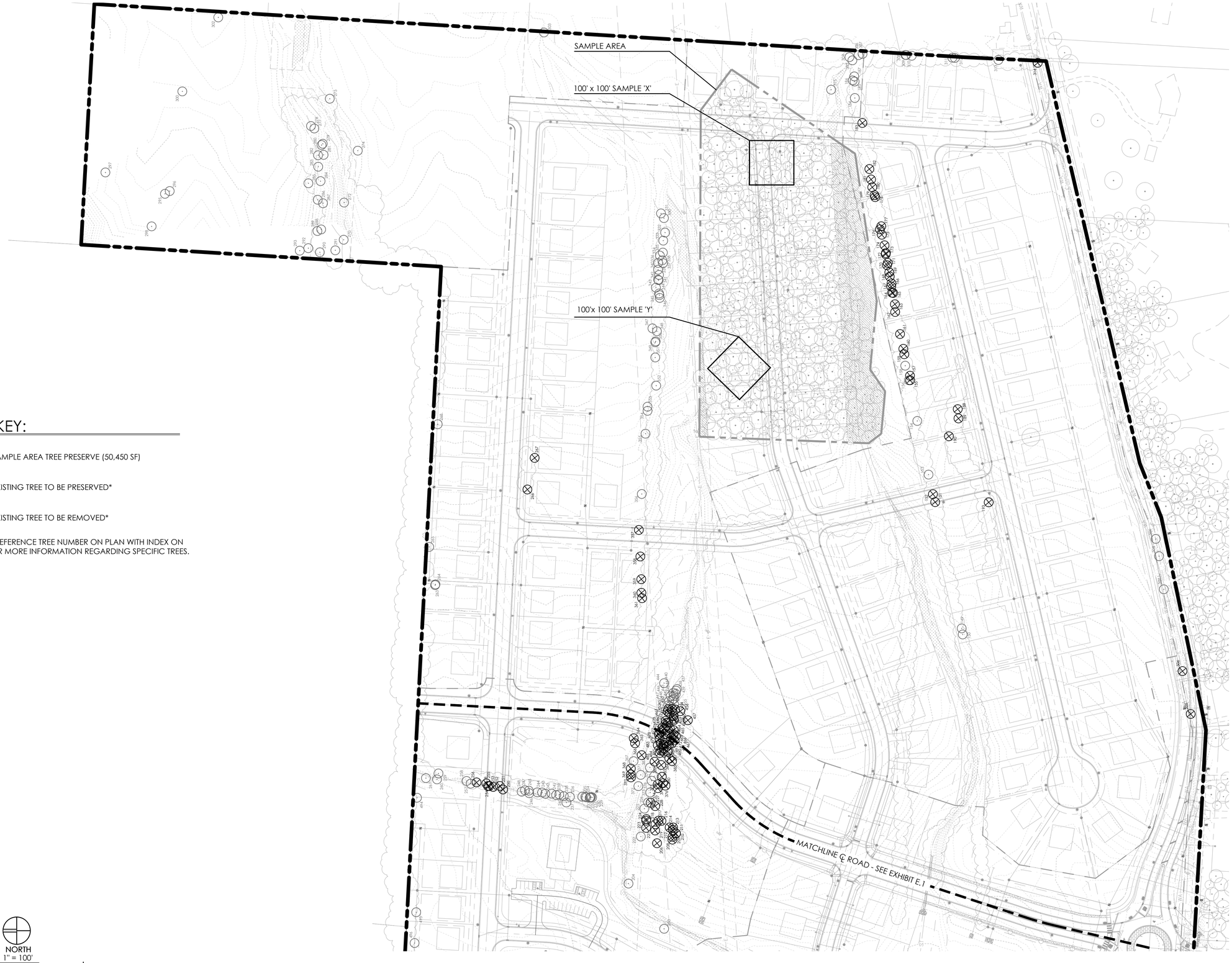
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EX-E.1



PLAN KEY:

- SAMPLE AREA TREE PRESERVE (50,450 SF)
- EXISTING TREE TO BE PRESERVED*
- EXISTING TREE TO BE REMOVED*

*CROSS-REFERENCE TREE NUMBER ON PLAN WITH INDEX ON EX-E.3 FOR MORE INFORMATION REGARDING SPECIFIC TREES.

NORTH
1" = 100'
0 50 100 200 300

REVISIONS	

TREE PRESERVATION PLAN - EASTERN HALF

STOCKDALE FARMS

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EX-E.2

EXISTING TREES

TREE NUMBER	SIZE	SPECIES	CONDITION	STATUS
1	8	Maple	Good	B
2	11	Maple	Good	B
3	12	Crabapple	Fair	B
4	23	Maple	Fair	B
5	17	Red Cedar	Good	B
6	18	Spruce	Poor	B
7	11	Maple	Good	B
8	17	Spruce	Good	B
9	18	Mazle	Good	B
10	29	Maple	Good	B
11	12	Spruce	Good	B
12	39	Oak	Fair	B
13	10	Mulberry	Fair	B
14	20	Red Cedar	Poor	B
15	44	Cottonwood	Fair	B
16	26	Cherry	Fair	A
17	99	Sycamore	Good	A
18	31	Cherry	Poor	A
19	49	Sycamore	Good	A
20	46	Linden	Poor	A
21	13	Honeylocust	Poor	A
22	7	Osage Orange	Poor	A
23	18	Honeylocust	Poor	A
24	8	Honeylocust	Poor	A
25	7	Honeylocust	Poor	A
26	10	Honeylocust	Poor	A
27	17	Maple	Fair	A
28	15	Maple	Fair	A
29	7	Osage Orange	Fair	A
30	10	Honeylocust	Fair	A
31	11	Honeylocust	Fair	A
32	19	Honeylocust	Fair	F
33	16	Honeylocust	Fair	A
34	13	Honeylocust	Fair	A
35	30	Honeylocust	Fair	A
36	11	Honeylocust	Fair	A
37	13	Beech	Poor	A
38	11	Honeylocust	Fair	A
39	11	Elm	Fair	A
40	16	Honeylocust	Fair	A
41	10	Elm	Fair	A
42	16	Honeylocust	Fair	A
43	13	Honeylocust	Fair	A
44	10	Honeylocust	Fair	A
45	21	Honeylocust	Fair	F
46	13	Elm	Fair	A
47	7	Elm	Fair	A
48	13	Honeylocust	Fair	A
49	32	Honeylocust	Fair	A
50	18	Cherry	Poor	A
51	9	Elm	Fair	A
52	21	Honeylocust	Good	A
53	11	Elm	Fair	A
54	20	Honeylocust	Fair	A
55	11	Honeylocust	Fair	A
56	9	Honeylocust	Fair	A
57	12	Honeylocust	Fair	A
58	10	Honeylocust	Fair	A
59	13	Honeylocust	Fair	A
60	14	Honeylocust	Fair	A
61	17	Honeylocust	Fair	A
62	14	Honeylocust	Fair	A
63	7	Honeylocust	Fair	A
64	21	Honeylocust	Fair	A
65	17	Honeylocust	Fair	A
66	8	Maple	Fair	A
67	13	Honeylocust	Fair	A
68	7	Mulberry	Fair	A
69	9	Osage Orange	Good	A
70	23	Honeylocust	Poor	A
71	26	Sycamore	Fair	A
72	43	Osage Orange	Fair	A
73	9	Ash	Fair	C
74	24	Mulberry	Fair	A
75	9	Mulberry	Fair	A
76	17	Walnut	Fair	A
77	14	Honeylocust	Fair	A
78	10	Osage Orange	Fair	A
79	21	Ash	Fair	C
80	7	Cherry	Fair	A
81	23	Elm	Fair	A
82	60	Cherry	Fair	A
83	8	Elm	Fair	A
84	10	Hackberry	Fair	A
85	7	Hackberry	Fair	A
86	10	Hackberry	Fair	A
87	10	Hackberry	Fair	A
88	9	Elm	Fair	A
89	9	Ash	Fair	C
90	10	Maple	Fair	A
91	12	Osage Orange	Fair	A
92	11	Elm	Fair	E
93	0	not used		
94	7	Osage Orange	Fair	E
95	11	Oak	Fair	E
96	7	Oak	Fair	E
97	22	Oak	Poor	E
98	17	Redbud	Poor	E
99	25	Oak	Fair	E
100	14	Oak	Fair	E
101	34	Oak	Fair	E
102	31	Oak	Fair	E
103	18	Mulberry	Fair	A
104	54	Redbud	Fair	A
105	13	Crabapple	Fair	A
106	40	Hackberry	Fair	A
107	21	Cherry	Fair	A
108	7	Redbud	Fair	A
109	16	Hackberry	Fair	A
110	39	Mulberry	Fair	E
111	13	Spruce	Fair	E
112	18	Mulberry	Fair	E
113	8	Honeylocust	Fair	E
114	11	Honeylocust	Fair	E
115	18	Walnut	Fair	A
116	16	Walnut	Fair	E
117	7	Sweetgum	Fair	E
118	8	Sweetgum	Fair	E
119	7	Pine	Fair	E
120	14	Crabapple	Fair	E
121	25	Oak	Good	E
122	30	Maple	Poor	E
123	47	Maple	Good	E
124	31	Maple	Good	E
125	15	Maple	Poor	E
126	7	Walnut	Good	B
127	6	Elm	Good	B
128	7	Maple	Good	A
129	9	Walnut	Good	A
130	7	Walnut	Good	A
131	8	Mulberry	Fair	A
132	8	Cherry	Fair	B
133	7	Mulberry	Fair	B
134	8	Honeylocust	Good	A
135	88	Sycamore	Good	A
136	53	Sycamore	Good	B
137	7	Mulberry	Good	A
138	10	Honeylocust	Good	A
139	8	Elm	Fair	B
140	10	Honeylocust	Good	B
141	20	Cherry	Poor	A
142	70	Sycamore	Good	A
143	56	Sycamore	Good	A
144	71	Sycamore	Good	A
145	56	Sycamore	Good	F
146	54	Sycamore	Good	A
147	7	Honeylocust	Good	A
148	43	Cherry	Poor	F
149	7	Hackberry	Good	A
150	7	Mulberry	Good	A
151	7	Honeylocust	Good	B
152	7	Walnut	Good	B
153	7	Cherry	Poor	A
154	9	Cherry	Fair	A
155	9	Cherry	Fair	A
156	8	Cherry	Fair	A
157	6	Mulberry	Fair	B
158	6	Cherry	Fair	A
159	10	Mulberry	Fair	B
160	7	Mulbery	Fair	B
161	8	Walnut	Fair	B
162	8	Walnut	Fair	B
163	8	Walnut	Fair	B
164	7	Walnut	Fair	B
165	8	Walnut	Fair	B
166	6	Cherry	Poor	B
167	6	Wlanut	Fair	B
168	6	Allanthus	Fair	B
169	24	Allanthus	Fair	B
170	7	Akanthus	Fair	B
171	7	Walnut	Fair	B
172	6	Cherry	Fair	B
173	6	Mulberry	Fair	B
174	6	Cherry	Fair	B
175	6	Mulberry	Fair	B
176	7	Elm	Fair	B
177	7	Mulberry	Fair	B
178	9	Cherry	Fair	B
179	6	Mulberry	Fair	B
180	9	Mulberry	Fair	B
181	7	Walnut	Fair	B
182	13	Cherry	Fair	B
183	7	Honeylocust	Fair	B
184	7	Walnut	Fair	A
185	6	Walnut	Fair	A
186	7	Walnut	Fair	A
187	7	Walnut	Fair	A
188	17	Honeylocust	Good	B
189	6	Honeylocust	Good	B
190	34	Walnut	Fair	B
191	6	Honeylocust	Good	F
192	8	Honeylocust	Good	F
193	28	Walnut	Good	B
194	8	Cherry	Poor	F
195	13	Honeylocust	Good	F
196	7	Mulberry	Fair	F
197	6	Honeylocust	Good	F
198	15	Mulberry	Fair	B
199	6	Mulberry	Fair	B
200	6	Mulberry	Fair	B
201	8	Mulberry	Fair	B
202	11	Mulberry	Fair	B
203	8	Mulberry	Fair	A
204	7	Honeylocust	Good	A
205	7	Mulberry	Fair	F
206	33	Catalpa	Poor	B
207	27	Catalpa	Fair	F
208	18	Catalpa	Fair	B
209	14	Catalpa	Fair	B
210	24	Catalpa	Fair	B
211	22	Catalpa	Poor	B
212	18	Catalpa	Poor	B
213	22	Catalpa	Fair	B
214	18	Catalpa	Poor	B
215	21	Catalpa	Poor	F
216	14	Catalpa	Poor	B
217	21	Catalpa	Poor	B
218	14	Catalpa	Poor	B
219	15	Catalpa	Poor	B
220	20	Catalpa	Poor	F
221	15	Catalpa	Poor	B
222	53	Catalpa	Poor	A
223	18	Catalpa	Poor	B
224	14	Catalpa	Poor	B
225	23	Catalpa	Fair	A
226	22	Catalpa	Fair	A
227	9	Catalpa	Poor	B
228	45	Catalpa	Poor	B
229	16	Cherry	Poor	A
230	13	Cherry	Poor	A
231	15	Cherry	Fair	A
232	13	Cherry	Fair	A
233	12	Cherry	Fair	A
234	7	Cherry	Fair	A
235	11	Cherry	Fair	A
236	22	Honeylocust	Good	A
237	18	Honeylocust	Fair	A
238	6	Mulberry	Fair	A
239	8	Cherry	Fair	A
240	6	Cherry	Fair	A
241	9	Mulberry	Poor	A
242	8	Honeylocust	Fair	A
243	9	Cherry	Fair	A
244	8	Walnut	Fair	A
245	8	Catalpa	Fair	A
246	7	Catalpa	Fair	A
247	8	Catalpa	Fair	A
248	9	Elm	Fair	A
249	25	Honeylocust	Fair	F
250	8	Mulberry	Fair	B
251	10	Cherry	Fair	B
252	8	Elm	Fair	B
253	11	Mulberry	Fair	B
254	8	Elm	Fair	B
255	8	Ash	Good	B
256	22	Honeylocust	Good	B
257	14	Mulberry	Fair	A
258	15	Cherry	Fair	A
259	7	Honeylocust	Good	A
260	8	Honeylocust	Good	A
261	8	Honeylocust	Good	A
262	6	Honeylocust	Good	F
263	8	Sycamore	Good	A
264	6	Sycamore	Fair	A
265	12	Hickory	Fair	A
266	13	Catalpa	Good	B
267	8	Honeylocust	Fair	B
268	44	Red Oak	Fair	A
269	34	Maple	Fair	D
270	20	Cherry	Fair	D
271	6	Elm	Fair	D
272	42	Beech	Poor	D
273	28	Beech	Fair	D
274	30	Walnut	Good	D
275	7	Cherry	Fair	D
276	27	Maple	Fair	D
277	10	Cherry	Fair	D
278	6	Walnut	Good	D
279	6	Walnut	Good	D
280	7	Walnut	Good	D
281	7	Cherry	Fair	D
282	31	Beech	Poor	D
283	29	Beech	Poor	D
284	28	Beech	Good	D
285	34	Walnut	Good	D
286	31	Walnut	Good	D
287	28	Beech	Fair	D
288	34	Beech	Poor	D
289	8	Cherry	Fair	D
290	29	Beech	Fair	D
291	7	Maple	Fair	D
292	6	Elm	Fair	D
293	7	Walnut	Good	D
294	46	Ash	Dead	D
295	22	Maple	Fair	D
296	21	Walnut	Fair	D
297	25	Hickory	Good	D
298	30	Walnut	Good	D
299	27	Maple	Fair	D
300	24	Maple	Fair	D
301	32	Maple	Fair	D
302	55	Ash	Dead	D
303	6	Maple	Fair	A
304	6	Maple	Good	A
305	8	Elm	Fair	A
306	6	Hackberry	Good	A
307	10	Hackberry	Good	A
308	9	Hackberry	Good	A
309	10	Hackberry	Good	A
310	9	Elm	Good	A
311	11	Elm	Fair	A
312	27	Walnut	Good	A
313	6	Mulberry	Poor	A
314	38	Ash	Dead	C
315	47	Beech	Fair	A
316	21	Ash	Fair	Sample 'X'
317	18	Beech	Good	Sample 'X'
318	25	Ash	Poor	Sample 'X'
319	22	Maple	Good	Sample 'X'
320	20	Maple	Good	Sample 'X'
321	28	Maple	Good	Sample 'X'
322	44	Ash	Dead	Sample 'X'
323	29	Beech	Good	Sample 'X'
324	13	Maple	Good	Sample 'X'
325	25	Maple	Good	Sample 'X'
326	19	Maple	Good	Sample 'X'
327	16	Maple	Good	Sample 'X'
328	28	Beech	Good	Sample 'X'
329	24	Maple	Good	Sample 'X'
330	12	Elm	Good	A
331	6	Maple	Good	A
332	8	Mulberry	Good	A
333	9	Mulberry	Good	A
334	7	Mulberry	Good	A
335	7	Elm	Good	A
336	6	Mulberry	Good	A
337	10	Walnut	Good	A
338	7	Elm	Fair	A
339	7	Oak	Good	A
340	6	Mulberry	Good	A
341	8	Elm	Good	A
342	7	Elm	Good	A
343	7	Mulberry	Fair	A
344	6	Cherry	Fair	A
345	8	Cherry	Fair	A
346	6	Mulberry	Fair	A
347	9	Elm	Good	A
348	7	Elm	Fair	A
349	8	Cherry	Fair	A
350	6	Mulberry	Fair	A
351	6	Mulberry	Fair	A
352	6	Cherry	Fair	A
353	9	Elm	Fair	A
354	7	Mulberry	Fair	A
355	7	Mulberry	Fair	A
356	8	Mulberry	Good	A
357	6	Mulberry	Fair	B
358	10	Mulberry	Fair	B
359	6	Cherry	Fair	B
360	6	Cherry	Fair	B
361	6	Cherry	Fair	B
362	6	Mulberry	Fair	F
363	8	Mulberry	Fair	F
364	13	Oak	Good	B
365	9	Mulberry	Good	B
366	7	Oak	Good	B
367	7	Mulberry	Fair	B
368	9	Walnut	Fair	B
369	6	Mulberry	Fair	B
370	8	Mulberry	Fair	B
371	6	Honeylocust	Good	A
372	6	Honeylocust	Good	A
373	13	Mulberry	Fair	A
374	15	Catalpa	Poor	B
375	21	Catalpa	Poor	B
376	29	Catalpa	Poor	B
377	25	Catalpa	Poor	B
378	9	Hackberry	Fair	A
379	18	Mulberry	Poor	A
380	14	Mulberry	Poor	B
381	7	Cherry	Fair	A
382	16	Mulberry	Fair	B
383	8	Mulberry	Fair	B
384	35	Catalpa	Poor	B
385	6	Cherry	Poor	B
386	8	Cherry	Fair	F
387	0	not used		
388	0	not used		
389	0	not used		
390	0	not used		
391	0	not used		
392	0	not used		
393	0	not used		
394	0	not used		
395	0	not used		
396	0	not used		
397	0	not used		
398	0	not used		
399	0	not used		
400	7	Mulberry	Fair	F
401	7	Cherry	Fair	F
402	14	Hackberry	Good	F
403	15	Hackberry	Good	F
404	47	Buckeye	Fair	F
405	46	Buckeye	Fair	F
406	19	Buckeye	Good	F
407	9	Elm	Good	F
408	6	Elm	Good	F
409	8	Cherry	Good	F
410	7	Honeylocust	Good	F
411	6	Mulberry	Good	F
412	6	Maple	Poor	F
413	14	Honeylocust	Good	F
414	8	Mulberry	Fair	F
415	6	Mulberry	Fair	F
416	8	Walnut	Fair	F
417	7	Mulberry	Poor	F
418	35	Beech	Good	Sample'Y'
419	33	Ash	Dead	Sample 'Y'
420	38	Beech	Fair	Sample 'Y'
421	23	Maple	Good	Sample 'Y'
422	33	Beech	Fair	Sample 'Y'
423	25	Maple	Good	Sample 'Y'
424	19	Maple	Good	Sample 'Y'
425	29	Beech	Fair	Sample 'Y'
426	6	Beech	Good	Sample 'Y'
427	13	Maple	Good	Sample 'Y'
428	26	Ash	Dead	Sample 'Y'
429	11	Maple	Fair	Sample 'Y'
430	15	Maple	Fair	Sample 'Y'
431	12	Maple	Fair	Sample 'Y'
432	31	Ash	Dead	Sample 'Y'
433	6	Cherry	Fair	F
434	15	Cherry	Fair	F
435	9	Cherry	Good	F
436	7	Cherry	Fair	F
437	31	Catalpa	Poor	A
438	29	Catalpa	Good	A
439	15	Catalpa	Good	A
440	11	Catalpa	Poor	A
441	8	Catalpa	Poor	A
442	20	Catalpa	Poor	A
443	15	Catalpa	Fair	A
444	7	Mulberry	Fair	A
445	18	Catalpa	Poor	A
446	11	Catalpa	Good	A
447	15	Catalpa	Fair	A
448	12	Catalpa	Good	A
449	18	Catalpa	Poor	B
450	21	Catalpa	Good	A
451	13	Catalpa	Poor	B
452	22	Catalpa	Poor	B
453	15	Catalpa	Poor	B
454	14	Catalpa	Fair	B
455	6	Mulberry	Fair	A
456	11	Elm	Fair	B
457	8	Cherry	Fair	B
458	15	Catalpa	Fair	B
459	15	Catalpa	Good	B
460	17	Catalpa	Poor	B
461	16	Catalpa	Poor	B
462	12	Catalpa	Fair	B
463	10	Catalpa	Poor	B
464	17	Catalpa	Good	B
465	23	Catalpa	Fair	B
466	18	Catalpa	Fair	B
467	22	Catalpa	Fair	B
468	0		not used	
469	17	Catalpa	Good	B
470	0		not used	
471	22	Catalpa	Poor	B
472	20	Catalpa	Good	B
473	22	Catalpa	Fair	B
474	15	Catalpa	Fair	B
475	14	Catalpa	Poor	B
476	15	Catalpa	Poor	B
477	17	Catalpa	Fair	B
478	13	Catalpa	Poor	B
479	17	Catalpa	Fair	B
480	8	Catalpa	Poor	B
481	14	Catalpa	Fair	B
482	11	Catalpa	Poor	B
483	11	Catalpa	Poor	B
484	12	Catalpa	Poor	B
485	18	Catalpa	Fair	B
486	21	Catalpa	Fair	B
487	18	Catalpa	Poor	B
488	20	Catalpa	Poor	B
489	11	Catalpa	Poor	B
490	15	Catalpa	Poor	B
491	15	Catalpa	Poor	B
492	9	Mulberry	Fair	F
493	6	Honeylocust	Good	F
494	7	Ash	Fair	C
495	9	Mulberry	Good	A
496	7	Mulberry	Good	A
497	12	Mulberry	Good	A
498	7	Mulberry	Good	A
499	9	Mulberry	Fair	A
500	7	Mulberry	Good	A
501	7	Hackberry	Good	A
502	7	Ash	Poor	C
503	7	Elm	Fair	A
504	51	Sycamore	Fair	E
505	35	Walnut	Good	E
506	32	Maple	Fair	E
507	30	Maple	Fair	E
508	25	Maple	Fair	E
509	25	Walnut	Good	E
510	28	Hickory	Poor	F

SAMPLE AREA EXTRAPOLATIONS*

SAMPLE 'X' (10,000 SF)	# MAJOR TREES	CALIPER INCHES
Good Trees(Non-Ash)	11	242
Fair Trees(Non-Ash)	0	0
Poor/Dead/Ash Trees	3	90
Sample 'X' Total	14	***332***

SAMPLE 'Y' (10,000 SF)	# MAJOR TREES	CALIPER INCHES
Good Trees(Non-Ash)	6	121
Fair Trees(Non-Ash)	6	138
Poor/Dead/Ash Trees	3	90
Sample 'Y' Total	15	***349***

SAMPLE 'X' & 'Y' WEIGHTED AVG.'S	AVG. # MAJOR TREES	AVG. CALIPER INCHES
Good Trees(Non-Ash)	8.41	180
Fair Trees(Non-Ash)	3.10	70.7
Poor/Dead/Ash Trees	3.00	90

SAMPLE AREA EST. TOTAL (285,000 SF)	EST. # MAJOR TREES	EST. CALIPER INCHES
Good Trees(Non-Ash)	240	5,130
Fair Trees(Non-Ash)	88	2,015
Poor/Dead/Ash Trees	86	2,565
Sample Area Estimated Total	414	***9,710***

SAMPLE REPLACEMENT CALCULATIONS

ESTIMATED REMOVED TREES (234,500 SF)	INCHES REMOVED	REPLACEMENT INCHES REQ'D
Good Trees(replace 1" per 1" removed)	4221.90	4221.90
Fair Trees(replace 1/2" per 1" removed)	1658.27	829.14
Poor/Dead/Ash Trees (no replacements)	2110.95	0.00
Sample Area Replacement Total		***5,051.04***

SURVEYED TREE REPLACEMENT CALCULATIONS

	INCHES REMOVED	REPLACEMENT INCHES REQ'D
Good Trees(replace 1" per 1" removed)	605	605
Fair Trees(replace 1/2" per 1" removed)	1,185	593
Poor/Dead/Ash Trees (no replacements)	882	0
Surveyed Tree Replacement Total		***1,198***

TREE PRESERVATION CREDIT CALCULATIONS

	INCHES PRESERVED	CATEGORY CREDIT	SUBTOTAL CREDIT
GOOD TREES PRESERVED (SURVEY ONLY)			
6-11" (1" credit/1" preserved)	324	1	324.0
12-17" (2" credit/1" preserved)	51	2	102.0
18-23" (3" credit/1" preserved)	64	3	192.0
24"+ (4" credit/1" preserved)	543	4	2172.0
FAIR TREES PRESERVED (SURVEY ONLY)			
6-11" (1/2" credit/1" preserved)	600	0.5	300.0
12-17" (1" credit/1" preserved)	428	1.0	428.0
18-23" (1-1/2" credit/1" preserved)	184	1.5	276.0
24"+ (2" credit/1" preserved)	426	2.0	852.0
ASH TREE REMOVAL CREDIT			
Total Credit			***4,646.0***

TOTAL TREE REPLACEMENTS REQUIRED

	INCHES REMOVED	REPLACEMENT INCHES REQUIRED
GOOD TREES REMOVED (REPLACE 1" PER 1" REMOVED)	4826.9	4826.9
FAIR TREES REMOVED (REPLACE 1/2" PER 1" REMOVED)	2843.3	1421.7
POOR/DEAD/ASH TREES REMOVED (NO REPLACEMENTS)	2993.0	0.0
Subtotal		***6,248.6***
Preservation Credit		***-4,646.0***
TOTAL REPLACEMENTS REQUIRED		***1,602.6***

*SEE EX-E.2 FOR SAMPLE AREA AND SAMPLE AREA PRESERVE

STATUS KEY

A = PRESERVE
B = REMOVE
C = ASH (NOT REPLACED, CREDIT FOR REMOVAL IN UN-DEVELOPED AREAS)
D = FUTURE CLUSTER HOME PHASE, STATUS T.B.D. AT FINAL DEVELOPMENT PLAN STAGE
E = OFF PROPERTY/ IN R.O.W. (NOT COUNTED)
F = NOT LOCATED - COUNT AS REMOVED

REPLACEMENT TREE NOTES:

SHEET	CALIPER INCHES REPLACED
D.2	655.5
D.3	67
D.4	230
D.5	28
D.5.1	295.5
	1,276 INCHES REPLACED

REVISIONS

EXISTING TREE INDEX AND REPLACEMENT SCHEDULE

STOCKDALE FARMS

PREPARED FOR
LYH, LLC
5695 AVERY ROAD
DUBLIN, OH 43016

Faris Planning & Design
LAND PLANNING ✦ LANDSCAPE ARCHITECTURE
249 N. 5th Street ✦ Suite 401 ✦ Columbus, OH 43215
p (614) 487-1964 ✦ www.farisplanninganddesign.com

DATE	4/19/2019
PROJECT	15027
SHEET	

EX-E.3

EST 1808
CITY OF
DELAWARE
OHIO

PLAN REVIEW D:

Sheetz



L-ILL

SHEET	PROJECT	DATE
	19153	2-4-20

Faris Planning & Design

LAND PLANNING • LANDSCAPE ARCHITECTURE

243 N. 5th Street Suite 401 Columbus, OH 43215

p (614) 487-1964 www.farisplanninganddesign.com

SHEETZ DELAWARE

PREPARED FOR

BIRD & BULL ENGINEER'S & SURVEYORS, INC.

3500 SNOUFFER RD #225, COLUMBUS, OH 43235

ILLUSTRATIVE PLAN

REVISIONS

ORIG. SHT. SZ. 22"x 34"

PROPOSED SHEETZ
700 - 710 SUNBURY ROAD
CITY OF DELAWARE, DELAWARE COUNTY, OHIO
2020

REFERENCE BENCHMARK

BENCHMARKS WERE DERIVED FROM A VRS OBSERVATION OF MONUMENTS, PID DESIGNATION OF AJ7184, CORS_ID COLB AND ALL OTHER ELEVATION ARE BASED UPON THIS OBSERVATION.

ELEV.: 722.324'
(NAVD 88 REFERENCE DATUM)

BENCHMARK #1

"T" OF A WATER VALVE ALONG THE EAST SIDE OF MILL RUN CROSSING APPROXIMATELY 225 FEET SOUTH OF SUNBURY ROAD (SR 36/37).

ELEV.: 935.12'

BENCHMARK #2

SCRIBE MARK ON THE NORTHWEST CORNER OF THE STORM STRUCTURE EAST OF MILL RUN CROSSING AND SOUTH OF THE RETENTION POND. STRUCTURE IS APPROXIMATELY 550 FEET SOUTH OF SUNBURY ROAD (S.R. 36/37).

ELEV.: 930.24'

UTILITY CONTACT INFORMATION

WATER/SANITARY

CITY OF DELAWARE DEPARTMENT OF PUBLIC UTILITIES
WATER TREATMENT FACILITY
3080 US 23 NORTH
DELAWARE, OH 43015

WASTEWATER TREATMENT FACILITY
225 NORTH CHERRY ST.
DELAWARE, OH 43015

CONTACT: BLAKE JORDAN - DIRECTOR
PHONE: (740) 203-1900

WATER

DEL-CO WATER COMPANY, INC.
6773 OLENTANGY RIVER RD.
DELAWARE, OH 43015 - 8872
CONTACT: DAVE WOLF
PHONE: 740-548-7746 EXT. 2401

NATURAL GAS

SUBURBAN NATURAL GAS
2626 LEWIS CENTER RD.
LEWIS CENTER, OHIO 43035
(740) 548-2450

COLUMBIA GAS OF OHIO
920 GOODALE BL.
COLUMBUS, OH 43212
CONTACT: MATT COYNE - OPERATIONS MANAGER
(614) 818-2107

PLANNING, ZONING & BUILDING DEPARTMENT

CITY OF DELAWARE
PLANNING & COMMUNITY DEVELOPMENT
1 SOUTH SANDUSKY STREET
DELAWARE, OHIO 43015
CONTACT: DAVE EFLAND - DIRECTOR
(740) 203-1600

TELEPHONE

FRONTIER COMMUNICATIONS
1300 COLUMBUS SANDUSKY RD.
MARION, OH 43302
CONTACT: CHRIS AVERY
PHONE: (740) 383-0551

CABLE

SPECTRUM
PO BOX 2553
3760 INTERCHANGE RD.
COLUMBUS, OH 43216
CONTACT: KEVIN RICH
PHONE: (614) 481-5263
EMAIL: KEVIN.RICH@TWCABLE.COM
CONTACT: DAVID HOLSTEIN
PHONE: (614) 481-5262

WOW CABLE
3675 CORPORATE DR.
COLUMBUS, OH 43231
CONTACT: DAMON MADDOX - CONSTRUCTION ENGINEER
PHONE: (614) 948-4616

ELECTRIC

AMERICAN ELECTRIC POWER COMPANY - AEP
850 TECH CENTER DR.
GAHANNA, OH 43230-6605
CONTACT-PUBLIC FUNDED PROJECTS: PAUL PAXTON
PHONE: (614) 883-6831
CONTACT: KRISTEN THOMPSON
PHONE: (614) 883-7949

CITY ENGINEER

CITY OF DELAWARE
PUBLIC WORKS DEPARTMENT
440 E. WILLIAM STREET
DELAWARE, OHIO 43015
CONTACT: BILL FERRIGNO
PHONE: (740) 203-1810

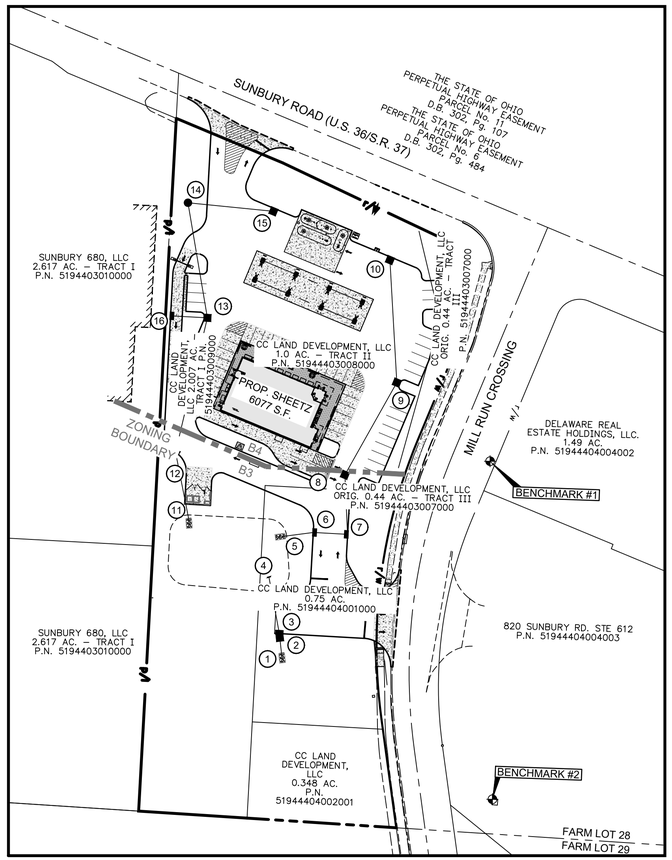
ELECTRIC (CONT.)

OHIO EDISON COMPANY / FIRST ENERGY
1040 S. PROSPECT ST.
MARION, OH 43302
CONTACT: JEFFERY HALL - COORDINATOR OF ENGINEERING SERVICES
PHONE: (740) 382-7104

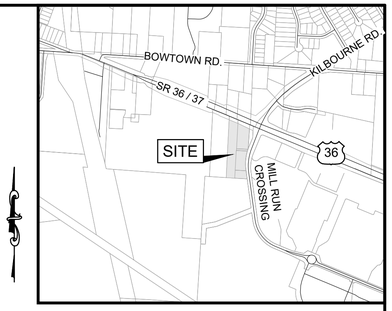
CONSOLIDATED ELECTRIC COOPERATIVE, INC.
5255 STATE ROUTE 95
MT. GILEAD, OH 43338
CONTACT: DAN AMATO - DIRECTOR OF ENGINEERING
PHONE: (419) 949-2932

ENVIRONMENTAL PROTECTION AGENCY

OHIO EPA - CENTRAL DISTRICT OFFICE
LAZARUS GOVERNMENT CENTER
50 W. TOWN ST., SUITE 700
COLUMBUS, OHIO 43215
CONTACT: ISAAC ROBINSON - CHIEF
PHONE: (614) 728-3778
FAX: (614) 728-3898



INDEX MAP
SCALE: 1" = 80'



LOCATION MAP
NO SCALE

INDEX OF SHEETS

1 COVER SHEET
2 GENERAL NOTES
3 GENERAL NOTES (CONT.), DETAILS, AND ESTIMATE OF QUANTITIES
4 SHEETZ GENERAL NOTES AND DETAILS
5 SHEETZ DETAILS (CONT.)
6 SHEETZ DETAILS (CONT.)
7 ALTA SURVEY (SHEET 1)
8 ALTA SURVEY (SHEET 2)
9 EXISTING CONDITIONS AND DEMOLITION PLAN
10 SITE PLAN
11 SITE DIMENSION, STRIPING, SIGNAGE, AND PAVING PLAN
12 STORM SEWER AND GRADING PLAN
13 INTERSECTION GRADING DETAILS
14 FUEL CENTER DETAILS
15 UTILITY PLAN
16 STORM SEWER PROFILES
17 DETENTION BASIN DETAILS
18 EROSION AND SEDIMENT CONTROL PLAN
19 EROSION AND SEDIMENT CONTROL PLAN NOTES
20 EROSION AND SEDIMENT CONTROL PLAN DETAILS
L-1 OVERALL LANDSCAPE PLAN
L-2 TREE PRESERVATION PLAN
S-1 PHOTOMETRIC PLAN

DAVID M. EFLAND, AICP — DATE:
DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT

WILLIAM L. FERRIGNO, P.E. — DATE:
PUBLIC WORKS DIRECTOR/CITY ENGINEER
OHIO REGISTERED PROFESSIONAL ENGINEER NO. 56942

MATTHEW B. WEBER, P.E. — DATE:
DEPUTY CITY ENGINEER
OHIO REGISTERED PROFESSIONAL ENGINEER NO. 65563

BLAKE JORDAN — DATE:
PUBLIC UTILITIES DIRECTOR
OHIO REGISTERED PROFESSIONAL ENGINEER NO. 77515

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE ASSURANCE TO OPERATE AS INTENDED. THE REVIEWER DOES NOT ACCEPT RESPONSIBILITY FOR THE INTEGRITY OF THE PLANS.

ANDREW A. GARDNER ~ OHIO ENGINEER NO. E-68659 — DATE:

ENGINEER/SURVEYOR

BIRD + BULL, INC.
3500 SNOUFFER ROAD, STE. 225
COLUMBUS, OHIO 43235
PHONE: 614-761-1661
FAX: 614-761-1328
CONTACT: ANDREW GARDNER, P.E.
E-MAIL: AGARDNER@BIRDBULL.COM

OWNER

CC LAND DEVELOPMENT, LLC
710 SUNBURY ROAD
DELAWARE, OHIO 43015

DEVELOPER

SKILKEN GOLD REAL ESTATE DEVELOPMENT
4270 MORSE ROAD
COLUMBUS, OHIO 43230
PHONE: 614-342-6632
CONTACT: SARAH GOLD
E-MAIL: SGOLD@SKILKENGOLD.COM

NOTE:
THE SHEETZ DESIGN AND CONSTRUCTION STANDARDS, CITY OF DELAWARE GENERAL NOTES, AND CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, SHALL GOVERN THESE PLANS.

STANDARD DRAWINGS

The Standard Drawings listed on this plan shall be considered a part thereof.

SHEETZ DETAILS	CITY OF DELAWARE		
SHEETZ A	ERSD-1.0	SEWD-8.0	WTRD-1.2
SHEETZ B	ERSD-2.0	SEWD-9.0	WTRD-3.0
SHEETZ C	ERSD-3.0	SEWD-10.0	WTRD-8.0
SHEETZ D	ERSD-4.0	SEWD-11.1	WTRD-11.0
SHEETZ E	ERSD-7.0	SEWD-11.2	WTRD-12.0
SHEETZ G	ERSD-8.0	SEWD-12.0	WTRD-13.0
SHEETZ H	ERSD-10.1	SEWD-13.0	WTRD-14.0
SHEETZ J	ERSD-10.2	SEWD-14.0	WTRD-15.0
SHEETZ Q	ERSD-10.3	SEWD-15.1	WTRD-20.0
SHEETZ S	ERSD-10.4	SEWD-15.2	
SHEETZ U		SEWD-16.2	ODOT HW-2.1
SHEETZ W	RDWD-10.0	SEWD-20.0	ODOT CB-1.2
SHEETZ X			ODOT CB-2.2

SITE DATA TABLE

TOTAL SITE AREA	3.88 AC
TOTAL DISTURBED AREA	3.06 AC
PRE-DEVELOPED IMPERVIOUS	2.17 AC.
POST-DEVELOPED IMPERVIOUS	1.97 AC.

REV NUM	REVISION DESCRIPTION	SHEET OR *SHEETS*	INITIAL	DATE

OHIO Utilities Protection SERVICE
Call Before You Dig
800-362-2764 or 8-1-1
www.oups.org

Bird+Bull Engineers & Surveyors
3500 Snouffer Rd., Ste.225
Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
WWW.BIRDBULL.COM

SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

COVER SHEET

SCALE: 1" = 80'			JOB NO. 19-165	1
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

H:\Jobs\2019\165\CADD\DWG\Design\Construction\C-COVER.dwg 02/04/2020

ORIG. SHT. SZ. 22"x 34"

LAND DEVELOPMENT PROJECTS: GENERAL PLAN NOTES (REVISED 12-31-18)

GEN-1 THE CITY OF DELAWARE "CITY" DETAILED SPECIFICATIONS, STANDARD DRAWINGS, AND INFRASTRUCTURE DESIGN MANUAL, TOGETHER WITH THE CITY OF COLUMBUS (COC) CONSTRUCTION AND MATERIAL SPECIFICATION (CMS), INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL MATERIAL AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN IN THESE PLANS UNLESS OTHERWISE NOTED. ALL PERTINENT STANDARD CONSTRUCTION DRAWINGS ARE AVAILABLE UPON REQUEST OF THE PUBLIC WORKS DEPARTMENT.

GEN-2 ALL WORK SHALL BE COMPLETELY ACCEPTABLE TO CITY OFFICIALS. NO WORK SHALL COMMENCE UNTIL ARRANGEMENTS HAVE BEEN COORDINATED WITH THE CITY FOR REQUIRED INSPECTIONS. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS NECESSARY TO COORDINATE THE PROVISION OF INSPECTION SERVICE BY THE CITY FOR THE PROPOSED WORK. COST OF INSPECTION SHALL BE PAID FOR BY THE DEVELOPER THROUGH ENGINEERING INSPECTION FEES CALCULATED BY THE PUBLIC WORKS DEPARTMENT.

GEN-3 THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE P PUBLIC WORKS DEPARTMENT AT LEAST 7 DAYS PRIOR TO THE INITIAL START OF ANY CONSTRUCTION PROJECT AND AFTER A PRECONSTRUCTION MEETING HAS BEEN HELD.

GEN-4 TWENTY-FOUR HOUR ADVANCE NOTIFICATION IS REQUIRED FOR ALL WORK REQUIRING INSPECTION, TESTING, OR APPROVAL BY THE PUBLIC WORKS DEPARTMENT OR THE BUILDING DEPARTMENT.

GEN-5 THE CONTRACTOR IS RESPONSIBLE TO NOTIFY THE PUBLIC WORKS DEPARTMENT AND REQUEST A FINAL PUNCH-OUT INSPECTION OF THE PROJECT SITE ONCE ALL ITEMS ON THE APPROVED DEVELOPMENT PLANS HAVE BEEN COMPLETED.

GEN-6 NECESSARY LINE AND GRADE STAKING WILL BE PROVIDED BY THE DEVELOPER. CUT SHEETS SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPARTMENT TWO (2) FULL WORKING DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND MUST BE APPROVED BY THE CITY PRIOR TO THE BEGINNING OF CONSTRUCTION.

GEN-7 THE DEVELOPER IS RESPONSIBLE FOR HAVING "AS-BUILT" CONSTRUCTION DRAWINGS DELIVERED TO THE PUBLIC WORKS DEPARTMENT WITHIN 30 DAYS FOLLOWING THE COMPLETION OF THE PROJECT CONSTRUCTION. PLANS SHALL BE SUBMITTED IN BOTH PAPER AND DIGITAL FORMAT. THE PLANS MUST INCLUDE TOP-OF-CASTING AND FLOW-LINE ELEVATIONS FOR ALL SANITARY AND STORM STRUCTURES, FLOOD ROUTING SWALE VERIFICATION, AND IDENTIFY ALL FIELD MODIFICATIONS TO THE APPROVED PLAN SET. THE "AS-BUILT" DRAWINGS MUST ALSO INCLUDE THE STATE PLANE COORDINATE LOCATIONS FOR ALL NEWLY CONSTRUCTED PUBLIC UTILITY STRUCTURES INCLUDING SANITARY/STORM STRUCTURES, MAINLINE WATER VALVES, FIRE HYDRANTS, STREET LIGHTS, PULL BOXES, ETC.

GEN-8 FOR MODIFICATIONS TO THE WORK AS SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS, A REQUEST MUST BE SUBMITTED IN WRITING FROM THE ENGINEER OF RECORD TO THE PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL. MODIFICATIONS MUST FOLLOW THE PLAN REVISION PROCESS SET FORTH BY PUBLIC WORKS DEPARTMENT AND ARE SUBJECT TO PLAN REVISION FEES.

GEN-9 THE CONTRACTOR OR DEVELOPER SHALL SECURE AND PAY FOR ALL PERMITS, FEES, LICENSES, AND INSPECTIONS REQUIRED FOR THE PROPER EXECUTION AND COMPLETION OF THE IMPROVEMENTS AS SHOWN ON THE APPROVED CONSTRUCTION PLANS.

GEN-10 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND VERIFY THE EXTENT OF THE WORK TO BE PERFORMED, TO IDENTIFY THE NECESSARY CONSTRUCTION MEANS AND METHODS TO ACCOMPLISH ALL WORK ITEMS, AND TO NOTIFY THE PUBLIC WORKS DEPARTMENT OF ANY IDENTIFIED CONFLICTS, ERRORS, OR OMISSION FROM THE CONSTRUCTION PLANS.

GEN-11 THE CONTRACTOR OR SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR OR SUBCONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

GEN-12 THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT 1-800-362-2764 SEVENTY-TWO HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST FORTY-EIGHT HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.

GEN-13 THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THE APPROVED CONSTRUCTION PLANS IS BASED ON THE MOST CURRENT AVAILABLE RECORDS, AND AT THE TIMES FROM MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION PROVIDED IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CITY ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR DEPTHS OF THE UNDERGROUND FACILITIES AS SHOWN ON THE PLANS. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST SEVEN DAYS IN ADVANCE OF ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.

GEN-14 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION OF ANY UTILITIES AS REQUIRED BY THE APPROVED CONSTRUCTION PLAN, OR THAT MAY BE DETERMINED BY ADDITIONAL FIELD INVESTIGATION TO BE IN CONFLICT WITH THE CONSTRUCTION OF NEW INFRASTRUCTURE AS SHOWN ON THE PLANS, AND TO COORDINATE THESE EFFORTS WITH THE OWNER OF THE AFFECTED UTILITY.

GEN-15 WHERE POTENTIAL GRADE CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO UNCOVER SUCH UTILITIES IN ADVANCE OF INSTALLING NEW UTILITIES IN ORDER FOR THE ENGINEER OF RECORD TO DETERMINE THE EXACT ELEVATIONS, AND TO MAKE ANY NECESSARY PLAN ADJUSTMENTS.

GEN-16 ALL MATERIALS INCLUDING BUT NOT LIMITED TO PIPING, APPURTENANCES, MANHOLES, GRAVEL, ETC. UTILIZED FOR THE CONSTRUCTION OF NEW PUBLIC INFRASTRUCTURE MUST BE APPROVED BY THE PUBLIC WORKS DEPARTMENT. IN ADDITION, ALL CONCRETE PIPE, STORM, AND SANITARY SEWER STRUCTURES WILL BE INSPECTED BY THE CITY OF COLUMBUS AT THE MANUFACTURING PLANT LOCATION FOR CONFORMANCE TO SPECIFICATIONS. PIPE OR STRUCTURES WITHOUT PROPER APPROVAL AS IDENTIFIED BY BEARING THE COC APPROVAL STAMP, SHALL NOT BE PERMITTED FOR INSTALLATION IN THE CITY OF DELAWARE.

GEN-17 ALL FIELD TILES BROKEN DURING EXCAVATION SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE, TO ORIGINAL CONDITION OR SHALL BE CONNECTED TO THE STORM SEWER COLLECTION SYSTEM AS DIRECTED BY THE CITY.

GEN-18 THE CONTRACTOR SHALL REPAIR OR REPLACE ANY PROPERTY, UTILITY, STRUCTURE, OR OTHER INFRASTRUCTURE AT HIS EXPENSE, DAMAGED DURING THE EXECUTION OF HIS WORK TO AN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO THE DAMAGE. ALL WORK IS TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OF RECORD AND THE CITY. ANY DAMAGE TO PRIVATE UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.

GEN-19 CARE SHALL BE EXERCISED WHEN WORKING IN THE AREA AROUND EXISTING TREES AND SHRUBS. ANY TREES OR SHRUBS NOT MARKED FOR REMOVAL THAT ARE DAMAGED BY THE CONTRACTOR WILL HAVE TO BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.

GEN-20 THE CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR PROVIDING AND SCHEDULING OF QUALIFIED PERSONNEL FOR CONCRETE, ASPHALT, AND SOILS TESTING SERVICES AS REQUIRED BY THE PUBLIC WORKS DEPARTMENT. TESTING IS TO BE PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED TESTING AGENCY APPROVED BY THE PUBLIC WORKS DEPARTMENT.

GEN-21 PROPERTY CORNER PINS OR PERMANENT SURVEY MARKERS DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A REGISTERED SURVEYOR AT CONTRACTOR'S EXPENSE.

GEN-22 EXISTING STRUCTURES TO BE REMOVED OR DEMOLISHED REQUIRE A "DEMOLITION PERMIT" ISSUED BY THE CITY BUILDING DEPARTMENT.

GEN-23 THE OPEN BURNING OF SITE CLEANING DEBRIS, TRASH, ETC. IS PROHIBITED IN THE CITY.

GEN-24 THE CONTRACTOR IS RESPONSIBLE FOR THE PROVISION AND MAINTENANCE OF A PORTABLE TOILET ON THE SITE DURING ALL PHASES OF CONSTRUCTION.

GEN-25 ALL EARTHWORK OPERATIONS, ESPECIALLY PAVEMENT SUB-GRADE CONSTRUCTION, SHALL BE INSPECTED BY A REGISTERED SOILS ENGINEER EMPLOYED AND PAID FOR BY THE OWNER. ADDITIONALLY, ALL FINAL GRADES SHALL BE FIELD CHECKED BY THE DEVELOPER'S CONTRACTOR AND/OR SURVEYOR FOR CONFORMANCE TO CONSTRUCTION PLAN GRADES.

GEN-26 UTILITY TRENCHES WITHIN THE INFLUENCE OF THE ROADWAY ARE TO BE FILLED AND COMPACTED PER ITEM 912 OF THE COC CMS. UTILITY TRENCHES WITHIN THE RIGHT OF WAY BUT OUTSIDE THE ROADWAY INFLUENCE SHALL BE FILLED AND COMPACTED WITH SUITABLE NATIVE MATERIAL PER ITEM 911 OF COC CMS. ALL OTHER TRENCHES ARE TO BE FILLED AND COMPACTED WITH NATIVE MATERIAL TO WITHIN 95% OF THE MAXIMUM DRY DENSITY. THE BACKFILL MATERIAL FOR ANY UTILITY TRENCH SHALL BE FREE OF LARGE BOULDERS, TREE BRANCHES, STUMPS, AND CONSTRUCTION DEBRIS. UTILITY TRENCHES THAT ARE UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE REQUIRED TO HAVE BACKFILL TESTED FOR COMPACTION BY AN APPROVED TESTING FIRM.

GEN-27 STORM SEWERS, SANITARY SEWERS, AND WATER MAINS CONSTRUCTED IN FILL AREAS SHALL NOT BE CONSTRUCTED UNTIL AFTER COMPACTED FILL HAS BEEN INSTALLED TO PROPOSED GRADE. THE STORM SEWERS, SANITARY SEWERS, AND WATER MAINS SHALL BE INSTALLED PER SPECIFIED TRENCH INSTALLATION DETAILS.

GEN-28 CLEARING AND GRUBBING IS TO BE PERFORMED FROM RIGHT OF WAY LINE TO RIGHT OF WAY LINE, WITHIN ALL EASEMENTS, OR AS OTHERWISE NOTED IN THE APPROVED CONSTRUCTION PLANS. TREE CHIPPING EQUIPMENT MAY BE USED HOWEVER CHIP PILES SHALL BE STORED IN SEPARATE LOCATIONS AWAY FROM ANY AREA SUBJECT TO FURTHER CONSTRUCTION ACTIVITIES, AND SHALL NOT BE SPREAD OR DISPERSED OVER EXISTING GROUND

GEN-29 TOPSOIL SHALL BE STRIPPED AND STOCKPILED SEPARATELY FROM ALL WORK AREAS, AND RESPREAD DURING FINAL GRADING OPERATIONS. FOR RESIDENTIAL DEVELOPMENTS, THE TOPSOIL SHALL NOT BE RESPREAD UNTIL SUCH TIME AS ALL BUILDING CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED ON INDIVIDUAL PROJECT PHASES.

GEN-30 SEEDING: ALL AREAS WITHIN THE RIGHT OF WAY DISTURBED DURING CONSTRUCTION SHALL BE SEEDED AND MULCHED WITHIN 7 DAYS FROM THE DATE WORK IN THE AREAS IS COMPLETED. SEED SHALL BE SPREAD AT THE RATE OF 14 POUNDS PER 1,000 SF AND MEET THE REQUIREMENTS OF COC CMS ITEM 659.09 CLASS 1 LAWN MIXTURE. A 10-20-10 COMMERCIAL FERTILIZER SHALL BE APPLIED AT A RATE OF 20 POUNDS PER 1,000 SF TO NEWLY SEEDED AREAS. SEEDING PERFORMED BETWEEN OCTOBER 30TH AND MARCH 1ST SHALL BE APPLIED AS TEMPORARY SEEDING PER COC CMS ITEM 207.

GEN-31 THE FOLLOWING TURF SEED BLEND IS REQUIRED FOR ALL PARK AREAS. SEED SHALL BE CERTIFIED, FRESH, CLEAN, POA AND BENT GRASS FREE, WITH 98% PURITY AND 85% MINIMUM GERMINATION RATE. SEED SHALL BE APPLIED AT A RATE OF 8 POUNDS PER 1,000 SF (350 POUNDS PER ACRE).

TURF TYPE MIXTURE SHALL BE TALL FESCUE (A MIXTURE OF NO LESS THAN THREE CULTIVARS BY WEIGHT) AND PERENNIAL RYEGRASS (A MIXTURE OF NO LESS THAN TWO CULTIVARS BY WEIGHT).

SEED CULTIVARS SHALL BE THE FOLLOWING OR AN APPROVED EQUAL:

- 30% GOODEN TURF TYPE TALL FESCUE
- 20% WOLVERINE TURF TYPE TALL FESCUE
- 20% COCHISE III TURF TYPE TALL FESCUE
- 15% NOBILITY PERENNIAL RYEGRASS
- 15% AMAZING GS PERENNIAL RYEGRASS
- FERTILIZER SHALL BE 10-20-10, APPLIED AT A RATE OF 20 POUNDS PER 1,000 SF. STRAW MULCH SHALL BE CLEAN OAT OR WHEAT STRAW, WELL-SEASONED BEFORE BAILING, AND FREE FROM MATURE SEED BEARING STALKS OR ROOTS OR PROHIBITIVE OR NOXIOUS WEEDS. THE STRAW MULCH SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE FOR ALL PERMANENT SEEDING.

THE TOP SIX (6) INCHES OF SOIL MUST CONFORM TO CMS ITEM 659.09 FOR LAWN AREAS. ALL ROCK AND OTHER FOREIGN MATERIAL 1 INCH OR GREATER IN ANY DIMENSION SHALL BE REMOVED.

ALL WORK WITHIN PARK AREAS, INCLUDING CONSTRUCTION OF FILLS, SHALL BE COMPLETED WITH TRACK EQUIPMENT ONLY. ALL OTHER EQUIPMENT USED MUST BE APPROVED BY THE CITY.

ALL SEEDING AND MULCHING MUST BE COMPLETED BY OCTOBER 1ST.

GEN-32 ALL MULCH UNDER PLAY EQUIPMENT SHALL BE CERTIFIED PLAYGROUND MULCH AND SPREAD TO A MINIMUM THICKNESS OF 12 INCHES. PLAYGROUND MULCH SHALL BE CERTIFIED TO THE LATEST STANDARDS, INCLUDING:

- ASTM F1292-04. PLAYGROUND MULCH SHALL MEET HEAD IMPACT CRITERIA (HIC) AND GMAX REQUIREMENTS OF 12" OF COVERAGE.
- ASTM F2075-04. PLAYGROUND MULCH SHALL MEET TRAMP METAL TEST AND SIEVE ANALYSIS.
- ASTM F1951. PLAYGROUND MULCH SHALL BE WHEELCHAIR ACCESSIBLE.

GEN-33 PLASTIC CAUTION TAPE SHALL BE PLACED OVER ALL FIBER OPTIC CONDUITS AT A DEPTH OF 18-INCHES.

ROADWAY NOTES

RDW-1 ALL PAVEMENT SUB-GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH COC CMS ITEM 204, THE SOILS REPORT, AND AS DIRECTED BY THE REGISTERED SOILS ENGINEER PRESENT ON THE SITE. THE CITY WILL STRICTLY ADHERE TO THE COMPACTION REQUIREMENTS SET FORTH IN SECTION 203.07. DENSITY TESTING MUST BE PERFORMED ON EACH LIFT OF FILL, AND THE SOILS ENGINEER PERFORMING THE TESTING MUST HAVE DETAILED LABORATORY TEST DATA ON SITE TO SUPPORT THE VALUES BEING UTILIZED IN THE DENSITY CALCULATIONS. THE MOISTURE CONTENT OF THE NEW FILL SHALL BE IN THE RANGE OF ± 2% OF THE OPTIMUM MOISTURE CONTENT DETERMINED BY ASTM D698. THE CITY RESERVES THE RIGHT TO REQUIRE DENSITY TESTING OF SUB-GRADE IN NEWLY CUT AREAS WHERE TOPSOIL HAS BEEN STRIPPED IN PREPARATION FOR SUB-BASE INSTALLATION OR FILLING OPERATIONS, IN ORDER TO EVALUATE THE NECESSITY FOR ADDITIONAL COMPACTION EFFORT.

RDW-2 ALL PAVEMENT JOINTS, PARTICULARLY WHERE A PROPOSED PAVEMENT ABUTS AN EXISTING PAVEMENT, AND ALL PAVEMENT JOINTS ABUTTING THE CURBLINE OR UTILITY STRUCTURES SUCH AS MANHOLES, CATCH BASINS, VALVE BOXES, ETC. SHALL BE SEALED IN ACCORDANCE WITH COC CMS ITEM 413 TYPE (1).

RDW-3 AT THE OPTION OF THE DEVELOPER AND APPROVED BY THE CITY, THE PLACEMENT OF THE FINAL WEARING COURSE OF ITEM 448 ASPHALT CONCRETE MAY BE DELAYED UNTIL SUCH TIME THAT THE MAJORITY OF THE RESIDENTIAL HOUSING CONSTRUCTION IN THE AREA IS COMPLETE, OR IN THE CASE OF WINTER CONSTRUCTION WHEN WEATHER PERMITS.

RDW-4 ALL ASPHALT CONCRETE PAVING OPERATIONS SHALL BE REGULATED AS SPECIFIED IN COC CMS ITEM 400 FLEXIBLE PAVEMENT.

RDW-5 PAVEMENT CUTS FOR UTILITY LINE INSTALLATIONS ARE SUBJECT TO THE BACKFILL REQUIREMENTS OF ITEM 912. IN LIEU OF COMPACTED GRANULAR MATERIAL, FLOWABLE CONTROLLED DENSITY FILL, ITEM 636 TYPE-11 MAY BE USED. PAVEMENT SHALL BE CONSTRUCTED TO MATCH THE EXISTING SECTION OR NINE INCHES OF ASPHALT CONCRETE, WHICHEVER IS GREATER. AS AN ALTERNATIVE, THE CONTRACTOR MAY CHOOSE TO REPAIR THE PAVEMENT WITH A 7" CLASS "C" CONCRETE BASE EXTENDING 1'-0 BEYOND ALL EDGES OF THE EXCAVATION, AND FINISHED WITH A 2-INCH ITEM 448 ASPHALT WEARING COURSE.

RDW-6 STEEL PLATES SHALL BE POSITIONED AND SECURED IN PLACE WITH STEEL SPIKES AND COLD PATCH ASPHALT MIX OVER ALL TRENCHES THAT ARE LEFT OPEN ON A TEMPORARY BASIS AND SUBJECT TO TRAFFIC. THE CONTRACTOR IS RESPONSIBLE FOR REPORTING THE LOCATION OF ALL STEEL PLATES DIRECTLY TO THE PUBLIC WORKS DEPARTMENT.

RDW-7 PROACTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO KEEP PUBLIC STREETS CLEAN AND FREE FROM MUD, STONE, DIRT, ETC. AT ALL TIMES. A STABILIZED CONSTRUCTION ENTRANCE, AS SPECIFIED IN THE PLANS, IS TO BE DILIGENTLY MAINTAINED AT THE CONSTRUCTION SITE ENTRANCE(S) THROUGHOUT THE PROJECT. IF THE ENTRANCE IS RENDERED INEFFECTIVE IN THE JUDGEMENT OF THE CITY, WORK ON THE PROJECT MAY BE SUSPENDED UNTIL THE ENTRANCE IS MADE EFFECTIVE.

RDW-8 CONCRETE CURBS ARE TO BE BRANDED DURING PLACEMENT UTILIZING THE STANDARD BRAND SET PROVIDED BY THE PUBLIC WORKS DEPARTMENT. BRANDS THAT ARE MISSED MUST BE MECHANICALLY GROUND INTO THE CURB AFTER CONCRETE IS SET.

BRAND CURBS ARE AS FOLLOWS:
"S" ON TOP OF CURB FOR SANITARY LATERAL LOCATIONS. "W" ON FACE OF CURB FOR WATER SERVICE BOX LOCATIONS.

"WV" ON FACE OF CURB FOR HYDRANT WATCH VALVE LOCATIONS. "WM" ON FACE OF CURB FOR WATER MAIN VALVE LOCATIONS.
"SM" ON FACE OF CURB FOR SANITARY/STORM MANHOLE LOCATIONS.

RDW-9 THE COMBINATION CURB AND GUTTER SHALL BE PLACED CONTINUOUSLY. THE CURB SHALL HAVE CONTROL JOINT MECHANICALLY CUT AT 10'-0" SPACING WITHIN 24 HOURS FROM BEING POURED. DRIVEWAY CURB CUTS SHALL BE SAW-CUT AT THE TIME EACH INDIVIDUAL RESIDENCE IS CONSTRUCTED.

RDW-10 MONUMENT BOXES SHALL BE INSTALLED AT INTERSECTIONS DESIGNATED ON THE PLAN BY A REGISTERED SURVEYOR. BOXES SHALL BE NEENAH R-1968, TYPE 36-8 OR EAST JORDAN IRON WORKS NO. 8371.
MONUMENTS ARE TO BE SET IN A CONCRETE FILLED 24" DIAMETER CORED HOLE, FLUSH WITH THE TOP OF THE PAVEMENT PER CITY STANDARD. A LETTER OF CERTIFICATION MUST BE SUBMITTED FOR EACH MONUMENT. THE LETTER SHALL IDENTIFY THE COORDINATES AND ELEVATIONS OF THE MONUMENT.

RDW-11 ALL TRAFFIC CONTROL (I.E., MAINTENANCE OF TRAFFIC (MOT)) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE "OHIO MANUAL OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION AND MAINTENANCE OPERATIONS" (OMUTCD). THE CONTRACTOR MUST PROVIDE THE CITY WITH 24-HOUR CONTACT INFORMATION IN THE EVENT THE MOT ITEMS REQUIRE ADJUSTMENT, REPAIR, OR REPLACEMENT.

RDW-12 TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC AT ALL TIMES AND INGRESS AND EGRESS SHALL BE MAINTAINED TO PUBLIC AND PRIVATE PROPERTY. LANE RESTRICTIONS OR CLOSURES REQUIRED DURING CONSTRUCTION MUST BE APPROVED BY THE PUBLIC WORKS DEPARTMENT A MINIMUM OF TWO-WEEKS IN ADVANCE OF ANY WORK BEING PERFORMED. A MAINTENANCE OF TRAFFIC (MOT) PLAN MUST BE SUBMITTED AND APPROVED PRIOR TO STARTING ANY WORK THAT EFFECTS TRAFFIC FLOWS. WORK REQUIRING PARTIAL OR COMPLETE CLOSURE OF ANY PUBLIC STREET REQUIRED 48-HOURS ADVANCE NOTIFICATION TO ALL AFFECTED RESIDENTS AND BUSINESSES. NOTIFICATION SHALL BE PREPARED AND DISTRIBUTED BY THE CONTRACTOR PRIOR TO SCHEDULED WORK. CITY APPROVAL OF ALL NOTIFICATIONS IS REQUIRED IN ADVANCE OF DISTRIBUTION.

RDW-13 COC ITEM 407 TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF FLEXIBLE PAVEMENT, BETWEEN CONCRETE BASE AND ASPHALT SURFACE COURSE, AND ALONG THE FACE OF THE CURB. THE TACK COAT APPLICATION MAY BE WAIVED AT THE DISCRETION OF THE PUBLIC WORKS DEPARTMENT IF THE LIFTS OF ASPHALT ARE INSTALLED WITHIN SEVEN (7) DAYS OF EACH OTHER, THERE HAS BEEN NO WATER OR VEHICLE TRAFFIC ON THE PAVEMENT, AND THE PAVEMENT IS CLEAN AND FREE OF DUST AND DEBRIS.

RDW-14 ALL CONSTRUCTION AND PERMANENT ROADWAY SIGNAGE MUST MEET THE MINIMUM REQUIRED OF OMUTCD TABLE 2A-3 REGARDING RETROREFLECTIVITY LEVELS.

RDW-15 PROOF ROLLING: THE FOLLOWING SPECIFICATIONS ARE PUT IN PLACE BY THE CITY OF DELAWARE IN ADDITION TO COC CMS ITEM 204 SUBGRADE COMPACTION AND PROOF ROLLING/TEST ROLLING:

FOR AREAS WHERE SUBGRADE APPEARS TO BE STABLE WITHOUT UNDERCUTTING, PROOF ROLL AFTER THE TOP 12 INCHES OF THE SUBGRADE MEETS THE COMPACTION REQUIREMENTS AND AFTER THE SUBGRADE HAS BEEN BROUGHT TO APPROXIMATE SHAPE WITHIN 0.1 TO 0.2 FEET REQUIRED BY PLAN GRADE.

FOR AREAS THAT ARE UNSTABLE AND REQUIRE UNDERCUTTING, IT IS NOT NECESSARY TO COMMENCE A FORMAL PROOF ROLL TO DEMONSTRATE THAT SUBGRADE CORRECTION IS REQUIRED. CORRECTION MUST BE AUTHORIZED BY THE CITY AT THE TIME OF ROUGH GRADING AND MUST BE BASED ON RECOMMENDATIONS FROM THE SOILS ENGINEER. PROOF ROLLING MUST BE TREATED AS THE FINAL VERIFICATION THAT ALL REPAIRS HAVE BEEN PERFORMED. FAILED PROOF ROLLS FOLLOWING CORRECTIVE ACTION WILL BE AT THE CONTRACTOR'S EXPENSE.

PROOF ROLLING MUST BE DONE IMMEDIATELY AFTER THE SUBGRADE COMPACTION OPERATION, WHEN THE MOISTURE CONTENT OF THE SUBGRADE SOIL IS NEAR OPTIMUM OR AT THE MOISTURE CONTENT THAT ACHIEVED COMPACTION. UNSTABLE OR HARD PAN CONDITIONS ENCOUNTERED DURING PROOF ROLLING OPERATIONS, WHICH RESULTS FROM THE FAILURE OF THE CONTRACTOR TO MAINTAIN THE SPECIFIED DENSITY AND MOISTURE REQUIREMENTS, MUST BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

IF IT BECOMES NECESSARY TO TAKE CORRECTIVE ACTION, SUCH AS BUT NOT LIMITED TO, UNDERDRAIN INSTALLATION, UNDERCUT AND BACKFILL OF AN UNSUITABLE MATERIAL, AERATION OF EXCESSIVELY WE MATERIAL IN AREAS THAT HAVE BEEN PROOF ROLLED, OR (IF HARD PAN EXISTS) RECONDITIONING THE UPPER PORTION OF THE SUBGRADE, THESE AREAS SHALL BE PROOF ROLLED AGAIN FOLLOWING THE COMPLETION OF THE NECESSARY CORRECTIONS. IF THE CORRECTIONS ARE NECESSARY DUE TO THE NEGLIGENCE OF THE CONTRACTOR AND/OR WEATHER, THE CORRECTIVE WORK AND ADDITIONAL PROOF ROLLING MUST BE PERFORMED BY THE CONTRACT AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL BE REQUIRED TO PERFORM A PROOF ROLL ALONG THE CURB LINE TO CONFIRM THERE IS NO UNSUITABLE MATERIAL IN ADVANCE OF INSTALLING CURB RAIN, STONE, OR CONCRETE CURBING.

PROOF ROLLING FOR THE PAVEMENT AREA MAY OCCUR EITHER BEFORE OR AFTER PIPE UNDERDRAINS ARE INSTALLED. IF FOLLOWING THE INSTALLATION OF UNDERDRAINS, ROLLING SHOULD NOT OCCUR DIRECTLY OVER THE UNDERDRAINS. IN 204.06, PROOF ROLLING MUST BE PERFORMED AT LEAST 1-1/2 FEET AWAY FROM THE UNDERDRAINS BECAUSE OF THE POTENTIAL DAMAGE TO THE UNDERDRAINS.

STORM SEWER NOTES

STM-1 ALL STORM SEWER SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS CONTAINED WITHIN THE MOST RECENT EDITION OF THE COC CMS, EXCEPT AS MODIFIED WITHIN THE CITY OF DELAWARE GENERAL NOTES, STANDARD DRAWINGS AND INFRASTRUCTURE DESIGN MANUAL. THE MINIMUM REQUIREMENTS FOR STORM SEWER PIPE WITHIN THE CITY RIGHT OF WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE (RCP) PER ASTM C655 OR ASTM C76, NON-REINFORCED CONCRETE PIPE PER ASTM C14, HIGH-DENSITY POLYETHYLENE (HDPE) PIPE PER AASHTO M294 (ADS N-12 WT OR APPROVED EQUAL), OR HIGH- PERFORMANCE POLYPROPYLENE (PP) PIPE PER ASTM F2881 OR AASHTO M330 (ADS HP STORM OR APPROVED EQUAL). HDPE PIPE SHALL ONLY BE USED IN REAR YARD STORM APPLICATIONS. ALL STORM SEWERS WITHIN PAVEMENT AND RIGHTS-OF-WAY SHALL BE EITHER RCP OR PP PIPE. ALL PIPE MANUFACTURERS' MATERIALS MUST APPEAR ON THE COC LIST OF APPROVED STORM SEWER MATERIALS TO BE USED IN THE CITY OF DELAWARE.

STM-2 FLEXIBLE STORM SEWERS WITHIN THE RIGHT OF WAY WILL BE DEFLECTION TESTED AND/OR VIDEO INSPECTED AT THE CONTRACTOR'S EXPENSE. TESTING SHALL BE PERFORMED NO SOONER THAN THIRTY DAYS AFTER THE PIPE TRENCH HAS BEEN BACKFILLED. MAXIMUM DEFLECTION SHALL NOT EXCEED 5% OF THE BASE INSIDE DIAMETER. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING ALL REQUIRED TESTING AND FOR NOTIFYING THE PUBLIC WORKS DEPARTMENT IN ADVANCE TO WITNESS THE TESTING.

STM-3 ALL FLEXIBLE PIPE INSTALLATIONS THAT ARE SUBJECT TO CONSTRUCTION LOADING SHALL MAINTAIN A MINIMUM COVER OF 2'-0 AT ALL TIMES DURING THE CONSTRUCTION PROCESS. TESTING SHALL NOT OCCUR UNTIL ALL CONSTRUCTION LOADING ABOVE THE SEWER IS COMPLETE.

STM-4 LEAKAGE TESTING SHALL BE PERFORMED FOR ALL STORM SEWERS AND STORM SEWER STRUCTURES LOCATED IN FRONT OR SIDE YARDS IN ACCORDANCE WITH COC CMS SECTION 901.20, EXCEPT THAT FOR STORM SEWERS THE ALLOWABLE LEAKAGE SHALL BE AS SPECIFIED THEREIN FOR SANITARY SEWERS.

STM-5 ALL HDPE AND PP PIPE JOINTS SHALL BE WATERTIGHT PER ASTM D3212 WITH GASKETS PER ASTM F477. RCP PIPE JOINTS SHALL INCLUDE PREFORMED FLEXIBLE JOINT SEALANT PER ASTM C990, UNLESS REQUIRED OTHERWISE BY STM-6.

STM-6 STORM SEWERS LOCATED ALONG A SIDE YARD SHALL BE RCP WITH NO AGGREGATE BEDDING AND NO AGGREGATE BACKFILL AND SHALL INCLUDE WATERTIGHT RUBBER GASKETS PER ASTM C443 AT THE JOINTS, UNLESS APPROVED OTHERWISE BY THE CITY. THIS MAY ALSO BE A REQUIREMENT FOR FRONT YARD AREAS WHEN REQUIRED BY THE CITY.

STM-7 STORM SEWER STRUCTURES LOCATED IN FRONT OR SIDE YARDS SHALL INCLUDE A FLEXIBLE WATERTIGHT CONNECTION FOR ALL PIPE PENETRATIONS THAT MEETS THE REQUIREMENTS OF COC CMS 706.16 (Z-LOK STM MANUFACTURED BY A-LOK PRODUCTS, OR APPROVED EQUAL). PIPE PENETRATIONS AT ALL CURB INLETS AND REAR YARD CATCH BASINS SHALL BE NEATLY GROUTED IN PLACE.

STM-8 STORM SEWER STRUCTURES LOCATED IN FRONT OR SIDE YARDS SHALL BE TESTED WITH AN EXFILTRATION TEST OR VACUUM TEST IN ACCORDANCE WITH COC SECTION 901.

**STM

ORIG. SHT. SZ. 22"x 34"

WATER LINE NOTES (CONT.)

WTR-16 ALL FITTINGS SHALL BE ADEQUATELY RESTRAINED WITH SOLID OR POURED IN PLACE CONCRETE BLOCKING PER THE CITY STANDARD DRAWINGS. ALL FITTINGS TO BE BACKED MUST BE THOROUGHLY WRAPPED IN PLASTIC SHEETING PRIOR TO PLACING CONCRETE.

WTR-17 FIRE HYDRANTS SHALL MEET AWWA STANDARDS AND ARE TO BE MUELLER "SUPER CENTURION 250" A-423 OR "CLOW MEDALLION" ON TYPE "A" SETTING WITH NATIONAL STANDARD THREADS FOR THE 2-1/2" HOSE NOZZLES AND WATCH VALVE DIRECTLY MOUNTED TO ANCHOR TEE. TYPE "B" SETTINGS SHALL NOT BE USED UNLESS APPROVED BY THE CITY. ALL PIPING BETWEEN THE WATCH VALVE AND HYDRANT SHALL BE MECHANICAL JOINT FITTINGS. THE CONNECTION TO THE HYDRANT SHALL BE A 5" STORTZ FITTING WITH A QUICK RELEASE LOCKING COUPLING. ALL SAFETY CHAINS ARE TO BE REMOVED FROM HYDRANTS.

WTR-18 ALL FIRE DEPARTMENT CONNECTIONS (STANDPIPES) SHALL HAVE A 45° DOWNTURN FITTING TO REDUCE KINKING IN THE FIRE HOSE. THE CONNECTION TO THE STANDPIPE SHALL BE A 5" STORTZ FITTING WITH A LOCKING COUPLING.

WTR-19 ALL NEW MAIN LINE AND HYDRANT WATCH VALVES ARE TO BE DIRECTLY BOLTED TO THE ANCHOR TEE WITH ANCHOR TYPE FITTINGS.

WTR-20 THE INSTALLATION OF 3/4" AND 1" WATER TAPS SHALL BE MADE BY DIRECT TAP ONLY. DIRECT TAPS ARE NOT PERMITTED TO ANY ASBESTOS MAINS. 1½" AND 2" WATER TAPS SHALL BE MADE WITH A FORD STYLE FC-202. 3" AND 4" WATER TAPS SHALL BE MADE WITH A FORD STYLE FS-202. 6" WATER TAPS AND LARGER SHALL BE MADE WITH A FORD FTSS TAPPING SLEEVE. A JCM 432 IS AN APPROVED EQUAL.

WTR-21 ALL GATE VALVES MUST BE DUCTILE IRON RESILIENT WEDGE 250 PSI AS MANUFACTURED BY AMERICAN FLOW CONTROL OR APPROVAL EQUIVALENT WHICH MEETS OR EXCEEDS THE REQUIREMENTS OF ANSI/AWWA C515. CLOW VALVE COMPANY, MODEL NUMBER 2638 APPROVED FOR16". 6" AND 8" MUST BE DUCTILE IRON AND EPOXY COATED.

WTR-22 VALVE BOXES ARE TO BE TYLER 6850 SERIES CAST IRON 2-PIECE SCREW TYPE FOR MAIN AND WATER VALVES AND TYLER 6500 SERIES CAST IRON 2-PIECE SCREW TYPE SERVICE BOXES FOR CURB VALVES. STAR PIPE PRODUCTS 2-PIECE SCREW TYPE VALVE BOX ITEM CODE APPROVED.

WTR-23 FOR WATER SERVICE TAPS: THE WATER MAIN CONNECTION SHALL BE MADE USING A MUELLER 300 BALL TYPE B-25008 OR FORD FB1000-Q BALLCORP CORPORATION STOP. CONTROL VALVES SHALL BE MUELLER 300 BALL CURB VALVE B-25209 OR FORD B44-Q BALL VALVE CURB STOPS (QUARTER TURN ONLY).

WTR-24 WATER SERVICE BOXES ARE TO BE INSTALLED IN PAIRS ALONG PROPERTY LINES, SET 8'-0" APART AND 1'-0" OUTSIDE OF THE RIGHT OF WAY LINE. A MINIMUM BURY DEPTH OF 48" BELOW TOP OF CURB MUST BE MAINTAINED FOR ALL WATER SERVICES IN THE RIGHT OF WAY.

WTR-25 ALL WATER LINES SHALL BE TESTED (AWWA C600 FOR DUCTILE IRON PIPE OR AWWA C605 FOR POLYVINYL CHLORIDE PIPE) AND STERILIZED (AWWA C651) BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH THE CITY AND AWWA SPECIFICATIONS. TESTING SHALL BE DONE UNDER THE SUPERVISION OF THE PUBLIC WORKS DEPARTMENT.

WTR-26 ALL METERS (OTHER THAN STANDARD 5/8" X 3/4" RESIDENTIAL METER) AND ALL BACKFLOW DEVICES SPECIFIED FOR THIS PROJECT MUST BE DELIVERED TO THE CITY PUBLIC UTILITIES DEPARTMENT FOR INSPECTIONS AND APPROVAL PRIOR TO INSTALLATION.

WTR-27 METER PITS, INCLUDING ALL PIPING, FITTINGS, EQUIPMENT, AND APPURTENANCES, MUST BE APPROVED BY THE CITY THROUGH A SCHEDULED FIELD INSPECTION DURING THE INSTALLATION. THE CITY PUBLIC UTILITIES DEPARTMENT IS RESPONSIBLE FOR INSPECTING THE DOMESTIC WATER METER PIT, DOMESTIC WATER LINE, AND ASSOCIATED APPURTENANCES. THE PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT IS RESPONSIBLE FOR THE INSPECTION OF: THE FIRE LINE, THRUST BLOCKS FOR THE FIRE LINE, METER PIT-FIRE LINE CONNECTION, FIRE DEPARTMENT CONNECTION, AND VALVE MONITORING. PRIOR TO BURYING THE WATER SERVICE, THE APPROPRIATE DEPARTMENT REPRESENTATIVE SHALL BE CONTACTED BY THE CONTRACTOR TO ARRANGE FOR THE REQUIRED INSPECTION OF EACH PORTION OF THE SERVICE. FAILURE TO HAVING THE INSPECTION PERFORMED WILL RESULT IN HAVING TO UNCOVER THE SERVICE FOR INSPECTIONS.

WTR-28 THE PRESSURE REQUIRED TO PERFORM HYDROSTATIC TESTING ON WATER LINES IS 150 PSI FOR DOMESTIC LINES AND 200 PSI FOR FIRE SUPPRESSION LINES (PER NFPA 13).

WTR-29 THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE SHALL CLEAN ALL WATER MAINS 12" AND LARGER BY PASSING A PROPERLY SIZED POLY PIG THROUGH THE PIPE PER COC 801.11.

WTR-30 ALL MECHANICAL JOINTS WITHIN THE METER VAULT SHALL INCLUDE FACTOR MANUFACTURED FLANGES. NO UNI-FLANGES ARE PERMITTED. ALL JOINTS AND FITTINGS LOCATED ON THE SUPPLY SIDE WITHIN 20-FEET OF THE METER VAULT SHALL BE RESTRAINED USING APPROVED MECHANICAL JOINT RESTRAINTS.

WTR-31 ALL WATER MAINS, INCLUDING THOSE NOT DESIGNED TO PROVIDE FIRE PROTECTION, SHALL BE SIZED AFTER A HYDRAULIC ANALYSIS BASED ON FLOW DEMANDS AND PRESSURE REQUIREMENTS. THE SYSTEM SHALL BE DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI AT GROUND LEVEL AT ALL POINTS IN THE DISTRIBUTION

SYSTEM UNDER ALL CONDITIONS OF FLOW. THE NORMAL WORKING PRESSURE IN THE DISTRIBUTION SYSTEM SHALL BE AT LEAST 35 PSI.

WTR-32 BOOSTER PUMPS ARE NOT PERMITTED ON INDIVIDUAL WATER SERVICES.

WTR-33 SHOP DRAWINGS ARE REQUIRED FOR BE SUBMITTED FOR REVIEW AND APPROVAL PER THE CITY OF COLUMBUS CMS PRIOR TO THE COMMENCEMENT OF ORDERING MATERIALS/CONSTRUCTION, THIS INCLUDES BUT IS NOT LIMITED TO, ALL WATER PIPE, TRACER WIRE, CONNECTIONS, VALVES BOXES, METER BOX COVERS, CURB STOPS, CORPORATION STOPS, HYDRANTS, FITTINGS, ACCESSORIES (GLANDS, GASKETS, BOLTS, NUTS) COUPLINGS, CLAMPS, RESTRAINTS, SERVICE SADDLES, ETC. ADDITIONAL SHOP DRAWINGS SHALL BE PROVIDED AS REQUESTED BY THE CITY OF DELAWARE.

SANITARY SEWER NOTES

SAS-1 ALL SANITARY SEWER SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS CONTAINED WITHIN THE MOST RECENT EDITION OF THE COC CMS, EXCEPT AS MODIFIED WITHIN THE CITY OF DELAWARE GENERAL NOTES, STANDARD DRAWINGS AND INFRASTRUCTURE DESIGN MANUAL. THE CONTRACTOR'S SPECIFIC ATTENTION IS DIRECTED TO THE REQUIREMENTS OF EITHER THE INFILTRATION OR EXFILTRATION AS SPECIFIED BY THE COC CMS SECTION 900. ALL SANITARY SEWERS, MANHOLES AND SERVICES SHALL BE TESTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. ALL SANITARY SEWERS SHALL BE SUBJECT TO, AND PASS THE INFILTRATION OR EXFILTRATION TEST PRIOR TO ACCEPTANCE, INCLUDING VACUUM TESTING OF MANHOLES. AN AIR TEST IS ACCEPTABLE TO THE CITY. THIS AIR TEST SHALL BE PERFORMED ACCORDING TO THE CURRENT REGULATIONS.

SAS-2 CLEAN WATER CONNECTIONS INCLUDING ROOF DRAINS, FOUNDATION DRAINS, SUMPS, ETC. ARE PROHIBITED FROM BEING CONNECTED TO THE SANITARY SEWER SYSTEM.

SAS-3 THE MINIMUM REQUIREMENT FOR SANITARY SEWER PIPE SHALL BE ASTM D3034 POLYVINYL CHLORIDE (PVC) SEWER PIPE, 46 PSI PIPE STIFFNESS (SDR35), ASTM C1784 CELL CLASSIFICATION OF 12454 OR 12364, WITH ASTM D3212 PIPE JOINTS; ASTM F679 PVC SEWER PIPE, 46 PSI PIPE STIFFNESS, ASTM CELL CLASSIFICATION 12454 OR 12364, WITH ASTM D3212 PIPE JOINTS; OR CENTRIFUGALLY CAST FIBERGLASS REINFORCED POLYMER CEMENT (CCFRPM) PIPE, ASTM D3262-TYPE 1, LINER 2, GRADE 3, STIFFNESS 72 PSI, UNLESS OTHERWISE SHOWN ON THE PLANS. PVC PIPE FOR INSTALLATIONS WITH A DEPTH OF COVER OF GREATER THAN 20-FEET SHALL BE THE SAME AS SPECIFIED ABOVE EXCEPT WITH A PIPE STIFFNESS OF 115 PSI (SDR26) FOR ASTM D3034 AND A PIPE STIFFNESS OF 115 PSI FOR ASTM F679. PIPE MANUFACTURERS MUST BE ON THE CURRENT COC APPROVED LIST, AND REQUIRE THE ADDITIONAL APPROVAL OF THE CITY PUBLIC UTILITIES DEPARTMENT DIRECTOR.

SAS-4 SANITARY SEWER SERVICES SHALL BE PVC PIPE WITH THE SAME SPECIFICATION AS THE SEWER MAIN AND SHALL BE 6-INCH DIAMETER, UNLESS APPROVED OTHERWISE. THE SERVICES ARE SUBJECT TO EITHER THE INFILTRATION OR EXFILTRATION TESTING REQUIREMENTS. ALL SERVICE EXTENSIONS SHALL BE INSTALLED AT A MINIMUM GRADE OF ¼" PER FOOT AND SHALL BE CONSTRUCTED AT THE TIME OF CONSTRUCTION OF THE MAIN SEWER, UNLESS OTHERWISE DIRECTED BY THE CITY.

SAS-5 ALL PVC PIPE SHALL BE DEFLECTION TESTED THIRTY DAYS OR MORE AFTER THE TRENCH HAS BEEN BACKFILLED TO FINISHED GRADE. A RIGID MANDREL SHALL BE USED FOR THE TESTING. NO MECHANICAL PULLING DEVICES SHALL BE USED. PIPE DEFLECTION SHALL NOT EXCEED FIVE 5%.

SAS-6 CLAY DAMS ARE TO BE INSTALLED ALONG MAIN LINE SEWERS AT HALF THE DISTANCE BETWEEN EACH PAIR OF MANHOLES, BUT NO CLOSER THAN 10'-0" FROM A LATERAL SERVICE. DAMS SHALL BE A MINIMUM OF 6'-0 LONG.

SAS-7 PUBLIC SANITARY MANHOLE COVERS ARE TO BE EAST JORDAN IRON WORKS NO. 1661-A2, NEENAH FOUNDRY OR EQUIVALENT, WITH ENCLOSED PICK HOLES AND EMBOSSED "CITY OF DELAWARE SANITARY SEWER". PRIVATE MANHOLE COVERS SHALL BE EMBOSSED "PRIVATE SEWER".

SAS-8 6'-0" LONG CLAY (TRENCH) DAMS ARE TO BE INSTALLED ON ALL SANITARY LATERALS (BOTH LONG AND SHORT LATERALS). DAMS ARE TO BE INSTALLED BY THE CONTRACTOR INITIALLY INSTALLING THE LATERALS. NO PART OF THE CLAY DAM SHALL BE INSTALLED WITHIN THE TRENCH BACKFILL FOR THE SEWER MAIN OR UNDER THE ROADWAY PAVEMENT.

SAS-9 ALL SANITARY MANHOLES AND LATERAL SERVICES ARE TO BE MARKED WITH A 4"X4"X10'-0" PRESSURE TREATED WOOD WYE-POLE PROJECTING 4'-0 ABOVE THE FINISHED GRADE AND WITH THE TOP 1'-0 PAINTED GREEN ON FOUR SIDES. ADDITIONALLY A 2"X2" HARDWOOD WYE POLE IS TO BE WIRED TO THE BASE OF EACH 4"X4" POLE AND EXTENDED DOWN TO THE END OF EACH LATERAL SERVICE. COST TO BE INCLUDED IN THE VARIOUS ITEMS. INDIVIDUAL LATERAL SERVICE WYE-POLES ARE TO BE INSTALLED AS EACH LATERAL IS CONSTRUCTED.

SAS-10 WHERE THE COVER TO FINISHED GRADE OVER A SANITARY WYE IS IN EXCESS OF 12'-0, A LENGTH OF RISER PIPE AND A 45° BEND SHALL BE INSTALLED ALONG WITH A MINIMUM OF ONE WHOLE LENGTH OF 6" PIPE SUCH THAT THE END OF THE SERVICE WILL BE 10'-0 BELOW GRADE.

SAS-11 WHERE THE SANITARY SEWER CROSSES UNDER A PROPOSED STORM SEWER OR WATERLINE THE TRENCH SHALL BE BACKFILLED TO THE BOTTOM OF THE PROPOSED STORM SEWER OR WATERLINE WITH COMPACTED GRANULAR MATERIAL ITEM 912, FOR A LENGTH OF 10 LF CENTERED ON THE STORM SEWER OR WATERLINE.

SAS-12 PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXISTING TIE-IN MANHOLE FLOWLINE AND TOP- OF-CASTING ELEVATIONS. MANHOLES SHALL BE BUILT OR ADJUSTED SO THE TOPS CONFORM TO THE ELEVATIONS SHOWN ON THESE PLANS. ALL MANHOLE CASTING ADJUSTMENTS SHALL BE ACCOMPLISHED WITH PRE-CAST CONCRETE OR HDPE PREFORMED ADJUSTMENT RINGS.

SAS-13 ALL SANITARY LINES SHALL BE INSTALLED WITH STONE OR GRAVEL BEDDING AS SHOWN IN THE STANDARD DRAWINGS.

SAS-14 SANITARY TRENCH DETAILS SHALL BE IN ACCORDANCE WITH CITY STANDARD DRAWINGS.

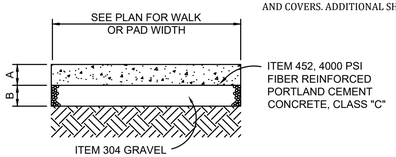
SAS-15 TEMPORARY BULKHEADS SHALL BE PLACED WHERE INDICATED ON THE PLANS AND SHALL REMAIN IN PLACE UNTIL REMOVAL IS DIRECTED BY THE CITY.

SAS-16 SANITARY LATERALS TO ADJACENT LOTS SHALL BE INSTALLED IN A 4'-0 WIDE COMMON TRENCH, SPACED WITH 2'-0 CENTER TO CENTER SEPARATION, AND WITH 1'-0 MINIMUM BEDDING AROUND PIPES. THE ENDS OF THE SERVICES ARE TO BE FLARED APART TO A MINIMUM 10'-0 CENTER TO CENTER SEPARATION AT 5'-0" OUTSIDE THE RIGHT OF WAY LINE.

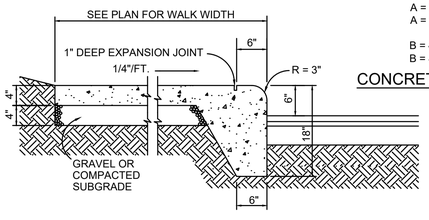
SAS-17 ALL SANITARY SEWER MANHOLES JOINTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C443. ALL MANHOLES SHALL HAVE WRAPIDSEAL MANHOLE ENCAPSULATION SYSTEM OR AN APPROVED EQUAL INSTALLED. THE ENCAPSULATION SHALL INCLUDE THE FRAME AND THE TOP OF THE CONE ONLY.

SAS-18 ALL SANITARY SEWERS ARE TO BE VIDEO INSPECTED 3 MONTHS BEFORE THE EXPIRATION OF THE MAINTENANCE BOND. ALL MUD AND DEBRIS SHALL BE REMOVED PRIOR TO THE MAINTENANCE BOND BEING RETURNED.

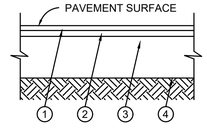
SAS-19 SHOP DRAWINGS ARE REQUIRED FOR BE SUBMITTED FOR REVIEW AND APPROVAL PER THE CITY OF COLUMBUS CMS PRIOR TO THE COMMENCEMENT OF ORDERING MATERIALS/CONSTRUCTION, THIS INCLUDES BUT IS NOT LIMITED TO, ALL SANITARY STRUCTURES, PIPE, FITTINGS, MANHOLE ENCAPSULATION SYSTEM, FRAMS, GRATES, AND COVERS. ADDITIONAL SHOP DRAWINGS SHALL BE PROVIDED AS REQUESTED BY THE CITY OF DELAWARE.



CONCRETE WALK AND PAVEMENT
NO SCALE



COMBINED CURB AND WALK
NO SCALE



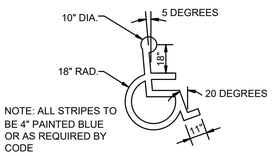
ASPHALT
PAVEMENT SECTION
NO SCALE

1. ITEM 441 1-1/2" ASPHALT CONCRETE SURFACE COURSE
2. ITEM 301 4-1/2" ASPHALT CONCRETE BASE COURSE
3. ITEM 304 8" AGGREGATE BASE (COMPACTED IN TWO EQUAL LAYERS)
4. ITEM 204 SUBGRADE COMPACTION

ESTIMATE OF QUANTITIES

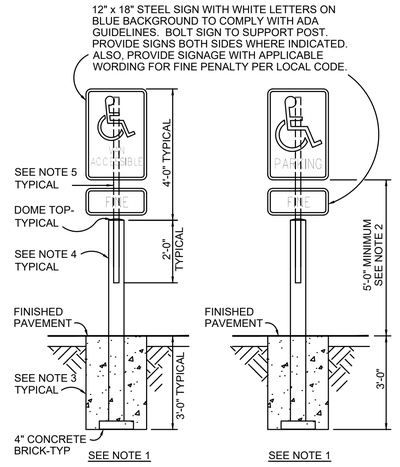
ITEM	QUANTITY	UNIT	DESCRIPTION
201	LUMP	SUM	CLEARING AND GRUBBING
201	LUMP	SUM	TREE REMOVAL
202	3984	S.Y.	ASPHALT PAVEMENT REMOVED AND DISPOSED OF
202	2789	S.Y.	GRAVEL PAVEMENT REMOVED AND DISPOSED OF
202	468	S.Y.	CONCRETE PAVEMENT REMOVED AND DISPOSED OF
202	162	L.F.	CONCRETE CURB REMOVED AND DISPOSED OF
202	72	L.F.	BRICK WALL REMOVED AND DISPOSED OF
202	941	L.F.	FENCE AND FENCE POSTS REMOVED AND DISPOSED OF
202	2	EA.	SIGN REMOVED FOR RELOCATION
202	LUMP	SUM	TRAFFIC EQUIPMENT REMOVED FOR RELOCATION
202	4	EA.	SIGN REMOVED AND DISPOSED OF
202	6	EA.	CONCRETE PARKING BLOCK REMOVED AND DISPOSED OF
202	2	EA.	MAIL BOX REMOVED AND DISPOSED OF
202	118	L.F.	STORM SEWER REMOVED AND DISPOSED OF
202	LUMP	SUM	ROOF DRAINS REMOVED AND DISPOSED OF
202	6	EA.	ELECTRIC POLE REMOVED AND DISPOSED OF
202	LUMP	SUM	TRANSMISSION ELECTRIC LINES REMOVED FOR RELOCATION
202	LUMP	SUM	ELECTRICAL SERVICES REMOVED AND DISPOSED OF
202	LUMP	SUM	WATER SERVICES REMOVED AND DISPOSED OF
202	LUMP	SUM	GAS SERVICES REMOVED AND DISPOSED OF
202	LUMP	SUM	SANITARY SERVICES REMOVED AND DISPOSED OF
202	2	EA.	SANITARY CLEANOUT REMOVED AND DISPOSED OF
202	LUMP	SUM	EXISTING BUILDING SLAB & FOUNDATIONS REMOVED AND DISPOSED OF
204	8155	S.Y.	SUBGRADE COMPACTION
207	LUMP	SUM	TEMPORARY SEEDING AND MULCHING
207	5	EA.	INLET PROTECTION - PAVEMENT
207	2	EA.	INLET PROTECTION - GRASS
207	6	EA.	CURB INLET PROTECTION
207	1741	L.F.	SEDIMENT AND EROSION CONTROL FENCING
207	324	L.F.	CONSTRUCTION FENCING
207	1	EA.	STABILIZED CONSTRUCTION ENTRANCE
207	1	EA.	CONCRETE WASHOUT
207	1	EA.	SEDIMENT RISER / SKIMMER
255	372	L.F.	FULL DEPTH PAVEMENT SAWING
301	710	C.Y.	ASPHALT CONCRETE, BASE COURSE
304	1262	C.Y.	AGGREGATE BASE
441	237	C.Y.	ASPHALT CONCRETE, SURFACE COURSE, (MEDIUM TRAFFIC), PG64-22
452	2166	S.Y.	8" NON-REINFORCED CONCRETE PAVEMENT, W/ FIBER ADDITIVE
452	307	S.Y.	10" NON-REINFORCED CONCRETE PAVEMENT, W/ FIBER ADDITIVE
601	14	C.Y.	ROCK CHANNEL PROTECTION, TYPE "C", W/ FILTER FABRIC
604	5	EA.	CATCH BASIN NO. 2-3 PER ODOT CB-1.2
604	1	EA.	CATCH BASIN NO. 2-4 PER ODOT CB-1.2
604	5	EA.	CURB INLET NO. 3A PER ODOT CB-2.2
604	4	EA.	HEADWALL PER ODOT HW-2.1, 18"
604	1	EA.	ORIFICE PLATE, AS PER PLAN
605	260	L.F.	4" PVC UNDERDRAIN
608	155	S.F.	4" CONCRETE WALK
608	2	EA.	CURB RAMP WITH DETECTABLE WARNING
609	2552	L.F.	STRAIGHT 18" CONCRETE CURB
614	LUMP	SUM	MAINTENANCE OF TRAFFIC
623	LUMP	SUM	CONSTRUCTION LAYOUT
624	LUMP	SUM	MOBILIZATION
630	LUMP	SUM	TRAFFIC SIGNS AND SUPPORTS
642	LUMP	SUM	PAINT STRIPING
655	LUMP	SUM	TREE PROTECTION FENCING
659	LUMP	SUM	PERMANENT SEEDING AND MULCHING
801	288	L.F.	2" WATER PIPE AND FITTINGS, TYPE "K" COPPER
802	1	EA.	2" VALVE AND APPURTENANCES
901	213	L.F.	4" STORM PIPE WITH TYPE 1 BEDDING, (ROOF DRAINS)
901	415	L.F.	6" STORM PIPE WITH TYPE 1 BEDDING, (ROOF DRAINS)
901	125	L.F.	8" STORM PIPE WITH TYPE 1 BEDDING, (ROOF DRAINS)
901	49	L.F.	4" STORM PIPE WITH TYPE 1 BEDDING, (METER VAULT DRAIN)
901	640	L.F.	12" STORM PIPE WITH TYPE 1 BEDDING
901	283	L.F.	18" STORM PIPE WITH TYPE 1 BEDDING
915	1	EA.	8" x 6" WYE FITTING
915	4	EA.	CLEAN-OUT, HEAVY DUTY
918	457	L.F.	6" SANITARY SERVICE LINE
SPEC.	288	L.F.	2" GAS SERVICE AND METER
SPEC.	96	L.F.	1" SCHEDULE 40 CONDUIT
SPEC.	197	L.F.	3" SCHEDULE 40 CONDUIT
SPEC.	1655	L.F.	4" SCHEDULE 40 CONDUIT
SPEC.	331	L.F.	5" SCHEDULE 40 CONDUIT
SPEC.	3128	S.F.	BRICK PAVERS
SPEC.	46	EA.	STOREFRONT BUMPER POST, AS PER PLAN
SPEC.	5	EA.	STEEL PIPE BOLLARD, AS PER PLAN
SPEC.	1	EA.	SEDIMENT MONITOR POST, AS PER PLAN
SPEC.	1	EA.	NYLOPLAST ENVIROHOOD
SPEC.	1	EA.	NYLOPLAST YARD DRAIN
SPEC.	1	EA.	METER VAULT, AS PER PLAN
SPEC.	1	EA.	HOT BOX AND BACKFLOW PREVENTER, AS PER PLAN
SPEC.	LUMP	SUM	RELOCATION OF TRAFFIC SIGNAGE
SPEC.	LUMP	SUM	RELOCATION OF TRANSMISSION ELECTRIC LINES
SPEC.	LUMP	SUM	TRANSFORMER
SPEC.	LUMP	SUM	2000 GALLON GREASE INTERCEPTOR
SPEC.	2	EA.	BIKE RACK, AS PER PLAN

NOTE RE:
THESE QUANTITIES ARE APPROXIMATE ONLY AND ARE NOT TO BE USED FOR PREPARATION OF COST ESTIMATES, BIDS, OR ANY OTHER ESTIMATING PURPOSE WITHOUT VERIFICATION BY THE USER. ANY DISCREPANCIES IN THE QUANTITIES SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER FOR EVALUATION.



NOTE: ALL STRIPES TO BE 4" PAINTED BLUE OR AS REQUIRED BY CODE

HANDICAPPED SYMBOL
NO SCALE



NOTES:

1. INSTALL ALL SIGNS WHERE INDICATED ON SITE PLAN.
2. ADJUST MOUNTING HEIGHTS TO MEET LOCAL CODES WHERE APPLICABLE.
3. SET ALL POSTS IN 10" DIAMETER x 36" DEEP CONCRETE FOUNDATION.
4. 4" x 6'-0" CONCRETE FILLED SCHEDULE 40 STEEL POST CENTERED IN FOUNDATION, PAINTED YELLOW, SEE SPECS.
5. 2 1/4" WIDE x 6'-0" LONG U-CHANNEL POST WITH BAKED ON GREEN ENAMEL FINISH.

PARKING STALL SIGNS
STANDARD DRAWING
NO SCALE

Bird+Bull Engineers & Surveyors
3500 Snouffer Road, Suite 225
Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
WWW.BIRDBULL.COM

SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

GENERAL NOTES (CONT.), DETAILS AND ESTIMATE OF QUANTITIES

SCALE: N/A			JOB NO. 19-165	3
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

H:\Jobs\2019\165\CADD\DWG\Design\Construction\C-NOTES.dwg 02/04/2020

ORIG. SHT. SZ. 22"x 34"

GENERAL DEMOLITION NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK.

2. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.

3. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE AND DO NOT INCLUDE MECHANICAL, ELECTRICAL AND MISCELLANEOUS STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THE DEMOLITION WORK FOR THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

4. ALL EXISTING ABOVE AND BELOW GROUND STRUCTURES WITHIN THE LIMITS OF NEW CONSTRUCTION SHALL BE RAZED UNLESS NOTED OTHERWISE WITHIN THIS CONSTRUCTION SET, ARCHITECTURAL PLANS AND/OR PROJECT SPECIFICATIONS. THIS INCLUDES FOUNDATION SLABS, WALLS, AND FOOTINGS.

5. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.

6. ALL UTILITY REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.

7. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.

8. UTILITY CONTACTS ARE LISTED ON THE TITLE SHEET.

9. EROSION AND SEDIMENTATION CONTROL MEASURES AROUND AREAS OF DEMOLITION SHALL BE INSTALLED PRIOR TO INITIATION OF DEMOLITION ACTIVITIES. REFER TO E&S PLAN FOR DETAILS.

10. ALL DEMOLITION AND REMOVAL MATERIALS SHALL BE DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. ALL DEMOLITION AND REMOVAL MATERIALS SHALL BE DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. ALL DEMOLITION AND REMOVAL MATERIALS SHALL BE DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.

11. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.

12. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL, AND OSHA REGULATIONS WHEN OPERATING DEMOLITION EQUIPMENT AROUND UTILITIES.

13. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE (LIST HIGHWAY DEPARTMENT) STANDARDS, AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.

14. CONTRACTOR SHALL PROTECT AT ALL TIMES ADJACENT STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION ACTIVITIES.

15. DEMOLITION CONTRACTOR SHALL COORDINATE EXISTING FACILITIES UTILITY DISCONNECTS WITH THE SHEETZ CONSTRUCTION REPRESENTATIVE A MINIMUM 7 DAYS PRIOR TO ANTICIPATED DEMOLITION OF STRUCTURES.

16. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

LAYOUT NOTES:

1. CONTRACTOR SHALL REFER TO THE SHEETZ ARCHITECTURAL PLANS FOR THE EXACT LOCATION OF UTILITY ENTRANCES, BUILDING DIMENSIONS, ROOF LEADERS, EXIT DOORS, EXIT RAMPS AND PORCHES.

2. ALL DIMENSIONS ARE TO BUILDING FACE, FACE OF CURB OR EDGE OF SIDEWALK UNLESS NOTED OTHERWISE.

3. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS FOR THE INSTALLATION OF TRAFFIC SIGNAGE AND PAVEMENT MARKINGS AS SHOWN ON THE CONSTRUCTION PLANS.

4. ALL NON-LANDSCAPED ISLANDS SHALL BE PAINTED WITH STRIPES 4" WIDE, AT 45° AND 2 FEET O.C.

5. ALL STRIPING SHALL BE 4" WIDE UNLESS NOTED OTHERWISE.

6. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF THE PYLON SIGN WITH SHEETZ.

7. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

GRADING NOTES:

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY BIRD + BULL, INC., THE CURRENT REQUIREMENTS OF THE CITY OF DELAWARE, THE APPLICABLE SECTIONS OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.

2. THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.

4. BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY OUPS (OHIO UTILITIES PROTECTION SERVICE) AT 800-362-2764 OR 8-1-1. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND *EXACT* LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.

5. ALL EXISTING TREES, VEGETATION, PAVEMENTS, CONCRETE FOUNDATIONS, STRUCTURES AND ORGANIC TOPSOIL SHALL BE STRIPPED AND REMOVED FROM NEW CONSTRUCTION AREAS UNLESS NOTED OTHERWISE.

6. ALL SLOPES SHALL BE 2:1 (HORIZONTAL: VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE. ALL SLOPES GREATER THAN 3:1 TO PERMANENTLY STABILIZED WITH LANDSCAPE PLANTS.

7. AN AS-BUILT DRAWING OF NEW UTILITY SERVICES MUST BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.

8. ALL AREAS NOT PAVED SHALL BE TOP SOILED, SEEDED, MULCHED OR LANDSCAPED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS, SITE SPECIFICATIONS OR INSTRUCTED BY THE OWNER.

9. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT PREPARED BY GCI PRIOR TO INITIATION OF ANY EARTHWORK ACTIVITY.

10. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.

STORMWATER MANAGEMENT NOTES:

1. ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY BIRD + BULL, INC., THE CURRENT REQUIREMENTS OF THE CITY OF DELAWARE, THE APPLICABLE SECTIONS OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, FOR ROADWAY CONSTRUCTION, AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.

2. THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.

4. BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY OUPS (OHIO UTILITIES PROTECTION SERVICE) AT 800-362-2764 OR 8-1-1. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.

5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BID AND PERFORM ALL UTILITY WORK IN COMPLIANCE TO ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE INSTALLATION, INSPECTING, TESTING AND FINAL ACCEPTANCE OF ALL PROPOSED UTILITIES CONSTRUCTION.

7. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY ON THE ADDITION, REMOVAL AND/OR RELOCATION OF UTILITIES AND UTILITY POLES AND THE EXTENSION OF ALL PROPOSED UTILITIES TO SHEETZ STORE. (ADD CAR WASH IF ONE PROPOSED FOR SITE)

8. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL UTILITIES ARE INSTALLED CORRECTLY TO MEET PROJECT REQUIREMENTS WHETHER PERFORMED BY THE CONTRACTOR OR NOT.

9. AN AS-BUILT DRAWING OF NEW UTILITY SERVICES SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.

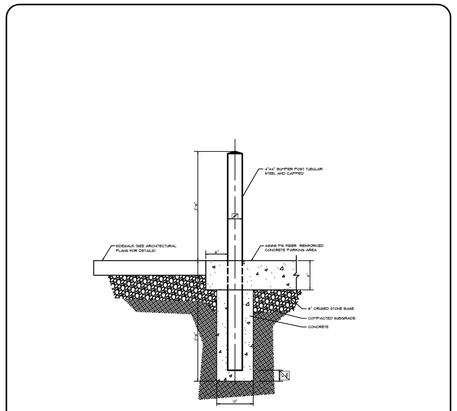
10. UTILITY COMPANIES AND CONTACTS ARE LISTED ON SHEET 1.

11. CONDUIT LOCATIONS TO PYLON SIGNS AND SITE LIGHT POLES TO BE COORDINATED WITH SHEETZ SUPERINTENDENT.

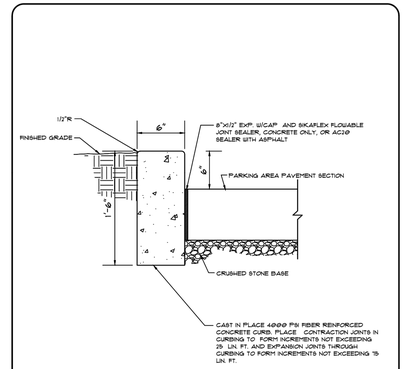
12. CONTRACTOR SHALL COORDINATE WITH SHEETZ SUPERINTENDENT ON LOCATION AND SIZE OF THE GREASE TRAP. GREASE TRAP SHALL BE PROVIDED WITH "I" PIPE IN OUTFLOW CHAMBER. ALL SANITARY SEWER PIPE SHALL BE SDR-35 PVC UNLESS OTHERWISE NOTED.

13. CONTRACTOR SHALL COORDINATE WITH SHEETZ ON CONDUIT ROUTE TO STORE FROM THE TRANSFORMER AND/OR SERVICE UTILITY POLE FOR TELEPHONE AND ELECTRICAL SERVICE.

14. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.



STOREFRONT BUMPER POST FLUSH SIDEWALK
SCALE: NO SCALE



SITE AND STORE PERIMETER CURBING
SCALE: NO SCALE

NO.	BY	DESCRIPTION	REVISIONS

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625 (814)239-6013

STOREFRONT BUMPER POST DETAIL

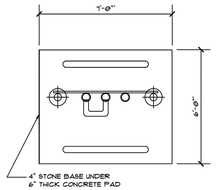
SCALE: AS NOTED
DATE: 01-17-19
DRAWN BY: MR
PLOTTED: DETAIL 14
A

NO.	BY	DESCRIPTION	REVISIONS

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625 (814)239-6013

SITE AND STORE PERIMETER CURBING

SCALE: AS NOTED
DATE: 01-17-19
DRAWN BY: MR
PLOTTED: DETAIL 15
C



UST VENT PAD

NO.	BY	DESCRIPTION	REVISIONS

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625 (814)239-6013

UST VENT PAD DETAILS

SCALE: AS NOTED
DATE: 01-17-19
DRAWN BY: MR
PLOTTED: DETAIL 16
SHEET NO.
D

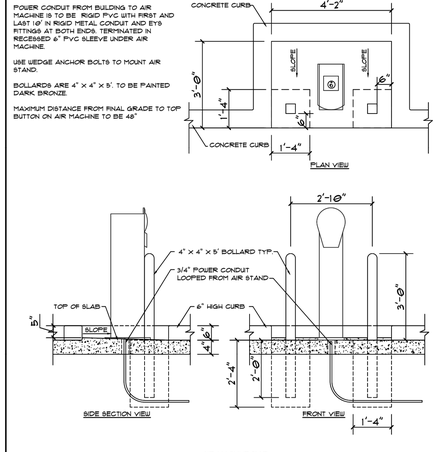
AIR MACHINE PAD NOTES:
ELECTRICAL NEEDS ARE A 120-VAC 30-AMP RIP WIRE CIRCUITS WITH GROUND

POWER CONDUIT FROM BUILDING TO AIR MACHINE IS TO BE RIGID PVC WITH FIRST AND LAST 18" IN RIGID METAL CONDUIT AND EYE FITTINGS AT BOTH ENDS TERMINATED IN RECESSED 6" PVC SLEEVE UNDER AIR MACHINE.

USE WEDGE ANCHOR BOLTS TO MOUNT AIR STAND.

BOLLARDS ARE 4" x 4" x 5'. TO BE PAINTED DARK BRONZE.

MAXIMUM DISTANCE FROM FINAL GRADE TO TOP BUTTON ON AIR MACHINE TO BE 48"



AIR MACHINE PAD
SCALE: NO SCALE

NO.	BY	DESCRIPTION	REVISIONS

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625 (814)239-6013

AIR MACHINE PAD DETAILS

SCALE: AS NOTED
DATE: 01-17-19
DRAWN BY: MR
PLOTTED: DETAIL 17
E

Bird+Bull Engineers & Surveyors
3500 Snouffer Road, Suite 225
Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
WWW.BIRDBULL.COM

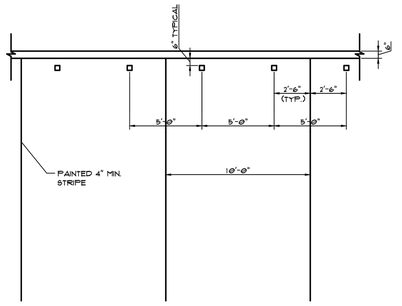
SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

SHEETZ GENERAL NOTES AND DETAILS

SCALE: N/A			JOB NO. 19-165	4
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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ORIG. SHT. SZ. 22"x 34"

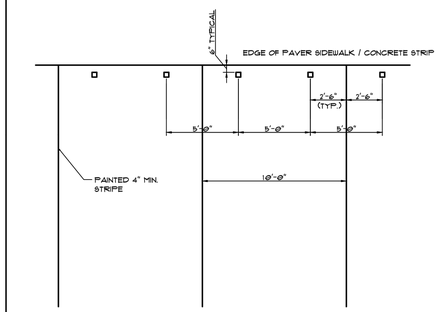


BUMPER POST DETAIL
SCALE: NO SCALE

- 2'-3" FOR 9.5' WIDE PARKING SPACE
  2'-0" FOR 9.0' WIDE PARKING SPACE

USE THIS DETAIL IF SIDEWALK HAS A HEADER CURB

	Convenience Architecture and Design P.C.	BUMPERPOST LAYOUT DETAIL AT 6" CURB	SCALE: AS NOTED DATE: 2/10/17 DRAWN BY: MS FILENAME: DETAIL G
DATE / BY / DESCRIPTION / REVISIONS	351 Sheetz Way, Claysburg, PA 16625 (814)239-6013		G

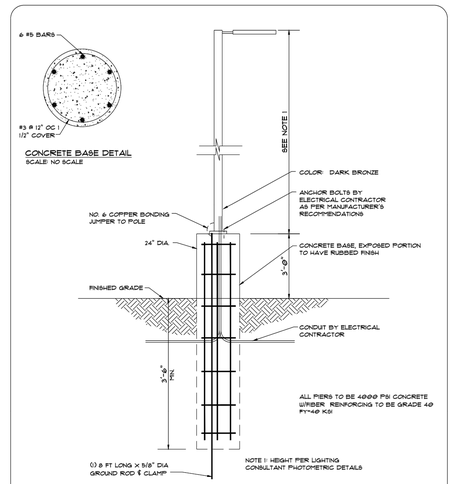


BUMPER POST DETAIL
SCALE: NO SCALE

- 2'-3" FOR 9.5' WIDE PARKING SPACE
  2'-0" FOR 9.0' WIDE PARKING SPACE

USE THIS DETAIL IF PAVEMENT IS PAVED UP TO TOP OF SIDEWALK.

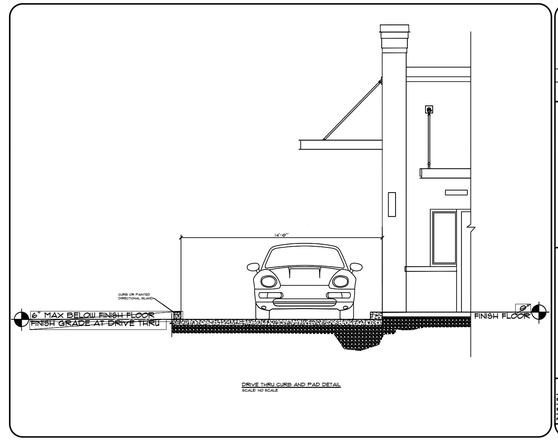
	Convenience Architecture and Design P.C.	BUMPERPOST LAYOUT DETAIL AT PAVER SIDEWALK	SCALE: AS NOTED DATE: 2/10/17 DRAWN BY: MS FILENAME: DETAIL H
DATE / BY / DESCRIPTION / REVISIONS	351 Sheetz Way, Claysburg, PA 16625 (814)239-6013		H



CONCRETE BASE DETAIL
SCALE: NO SCALE

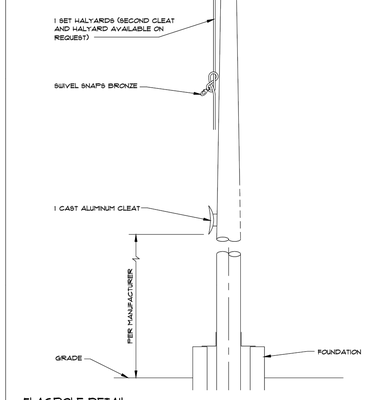
POLE LIGHT DETAIL
SCALE: NO SCALE

	Convenience Architecture and Design P.C.	POLE LIGHT DETAIL	SCALE: AS NOTED DATE: 2/10/17 DRAWN BY: MS FILENAME: DETAIL I
DATE / BY / DESCRIPTION / REVISIONS	351 Sheetz Way, Claysburg, PA 16625 (814)239-6013		I



DRIVE THRU CURB AND PAD DETAIL
SCALE: NO SCALE

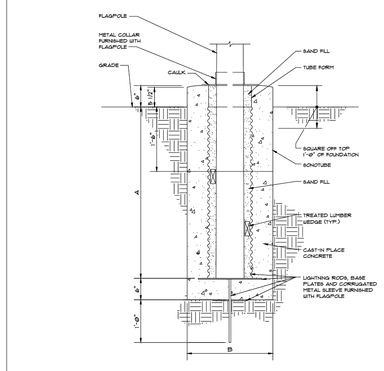
	Convenience Architecture and Design P.C.	DRIVE THRU CURB AND PAD DETAIL	SCALE: AS NOTED DATE: 2/10/17 DRAWN BY: DMH FILENAME: DETAIL J
DATE / BY / DESCRIPTION / REVISIONS	351 Sheetz Way, Claysburg, PA 16625 (814)239-6013		J



FLAGPOLE DETAIL
SCALE: NO SCALE

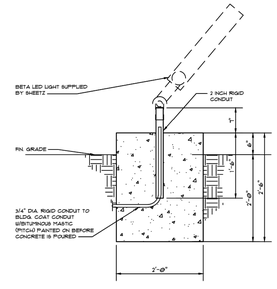
	Convenience Architecture and Design P.C.	FLAGPOLE DETAIL	SCALE: AS NOTED DATE: 2/10/17 DRAWN BY: MS FILENAME: DETAIL K
DATE / BY / DESCRIPTION / REVISIONS	351 Sheetz Way, Claysburg, PA 16625 (814)239-6013		K

LEGEND				
POLE HEIGHT	SLEEVE SIZE	A	B	COLLAR BASE SIZE
40'	17" DIA.	48"	24" DIA.	16" DIA.
35'	16" DIA.	42"	22" DIA.	15" DIA.



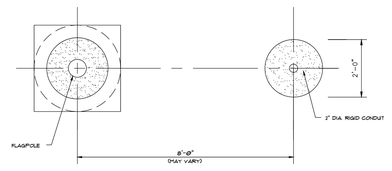
FLAGPOLE FOUNDATION
SCALE: NO SCALE

	Convenience Architecture and Design P.C.	FLAGPOLE FOUNDATION	SCALE: AS NOTED DATE: 2/10/17 DRAWN BY: MS FILENAME: DETAIL L
DATE / BY / DESCRIPTION / REVISIONS	351 Sheetz Way, Claysburg, PA 16625 (814)239-6013		L



FLAGPOLE LIGHT FOUNDATION
SCALE: NO SCALE

	Convenience Architecture and Design P.C.	FLAGPOLE LIGHT FOUNDATION	SCALE: AS NOTED DATE: 2/10/17 DRAWN BY: MS FILENAME: DETAIL M
DATE / BY / DESCRIPTION / REVISIONS	351 Sheetz Way, Claysburg, PA 16625 (814)239-6013		M



NOTE: CONTRACTOR/INSTALLER SHALL LOCATE LIGHT FIXTURE SO AS TO SHINE AWAY FROM ADJACENT ROADS AND/OR PROPERTIES

FLAGPOLE LIGHT FOUNDATION PLAN
SCALE: NO SCALE

	Convenience Architecture and Design P.C.	FLAGPOLE AND LIGHT FOUNDATION LAYOUT PLAN	SCALE: AS NOTED DATE: 2/10/17 DRAWN BY: MS FILENAME: DETAIL N
DATE / BY / DESCRIPTION / REVISIONS	351 Sheetz Way, Claysburg, PA 16625 (814)239-6013		N

Bird+Bull Engineers & Surveyors
3500 Snouffer Road, Suite 225
Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
WWW.BIRDBULL.COM

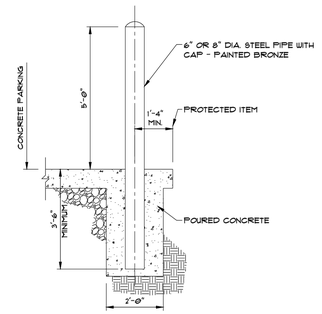
SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

SHEETZ DETAILS (CONT.)

SCALE: N/A			JOB NO. 19-165	5
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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ORIG. SHT. SZ. 22"x 34"



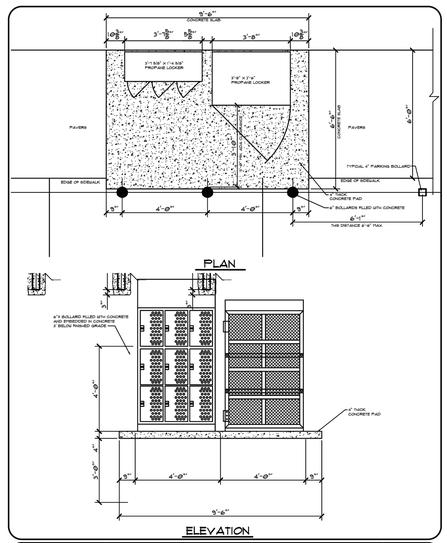
6" OR 8" DIAMETER PIPE BOLLARD
SCALE: NO SCALE

DATE	BY	DESCRIPTION
REVISIONS		

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625 (814)239-6013

6" OR 8" PIPE BOLLARD

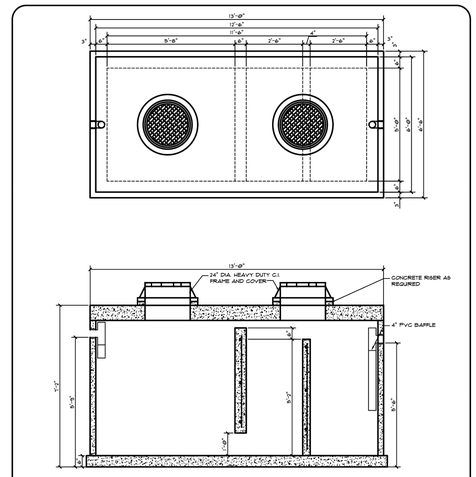
SCALE: AS NOTED
DATE: 4/19/19
DRAWN BY: MPS
FILENAME: DETAIL Q
Q



Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625 (814)239-6013

PROPANE LOCKER AT BUILDING

SCALE: 1/2" = 1'-0"
DATE: 4/19/19
DRAWN BY: MPS
FILENAME: DETAIL S - PROPANE
S

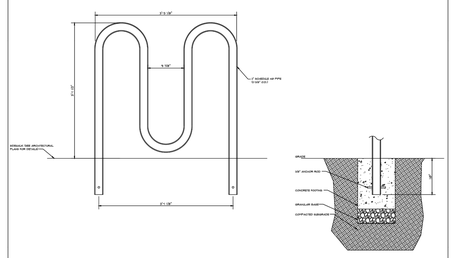


PRECAST CONCRETE 2000 GALLON GREASE INTERCEPTOR
SCALE: NO SCALE

Convenience Architecture and Design P.C.
351 Sheetz Way, Claysburg, PA 16625 (814)239-6013

2000 GALLON PRECAST CONCRETE GREASE INTERCEPTOR

SCALE: AS NOTED
DATE: 4/19/19
DRAWN BY: MPS
FILENAME: DETAIL U
U

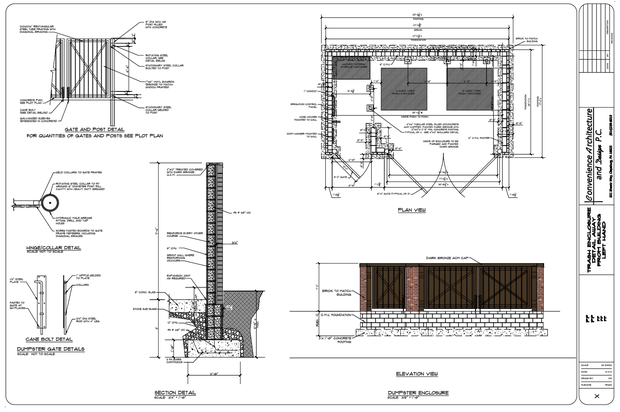


BIKE RACK
SCALE: NO SCALE

Convenience Architecture and Design P.C.
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BIKE RACK

SCALE: AS NOTED
DATE: 4/19/19
DRAWN BY: MPS
FILENAME: DETAIL W
W



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351 Sheetz Way, Claysburg, PA 16625 (814)239-6013

TRUMAN BOULEVARD
CIRCLEVILLE, OHIO
PICKAWAY COUNTY
LIGHT LOAD

DATE	BY	DESCRIPTION
REVISIONS		

SCALE: AS NOTED
DATE: 4/19/19
DRAWN BY: MPS
FILENAME: DETAIL X
X

Bird+Bull Engineers & Surveyors
3500 Snouffer Road, Suite 225
Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
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700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

SHEETZ DETAILS (CONT.)

SCALE: N/A			JOB NO. 19-165	6
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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TITLE DESCRIPTION

PARCEL I:

Situated in the City of Delaware, County of Delaware, and the State of Ohio, and bounded and described

as follows:

Being in Range 19, Township 5, Section 4 and southwest part of Lot 28, U.S.M. Lands.

Beginning at a stone on a post at the southwest corner of Lot 28, thence running N. 2 deg. 45' E. along the west line of Lot 28, 51.43 rods to the center of the State Road running from Delaware to Berkshire; thence S. 70 deg. E. along the center of said road, 21.8 rods to a point on the center of said road; thence S. 0 deg. 45' W. 47.43 rods to a point in the South line of said Lot 28; thence N. 88 deg. along the South line of said Lot 28, 18.36 rods to the place of beginning, containing 5.984 acres of land, more or less.

EXCEPTING therefrom the following described premises:

Beginning at a steel spike at the point of intersection of the center line of U.S. 36 and the West line of Lot 28, also the present highway stationing 516-23.19; thence
S. 65 deg. 20' 15" E. along the centerline of U.S. 36, 225.00 feet to a steel spike; thence
S. 5 deg. 04' 15" W. 500.00 feet to an iron pipe, passing over an iron pipe at 47.73 feet on the right of way line; thence N. 84 deg. 55' 45" W. 211.97 feet to an iron pipe on the West line of Lot 28; thence N. 5 deg. 04' 15" E. along said Lot line 575.55 feet to the point of beginning, passing over an iron pipe on the right of way at 533.12 feet, containing 2.617 acres, being the northwest part of a 5.984 acre tract conveyed to the Grantors by Deed recorded in Deed Book Vol. 313, Page 664, Delaware County Recorder's Office.

ALSO EXCEPTING therefrom the following described premises:

Beginning at a stone found at the corner common to Farm Lots 14, 15, 28 and 29, being point "N" as shown in Survey Volume 7, Page 440, Delaware County Engineer's Office; thence along the line common to Farm Lot 28 and Farm Lot 15, N. 5 deg. 4' 2" E. a distance of 277.99 feet to an iron pipe set at the southwest corner of a 2.617 acre tract of land owned by Van E. Gates as described in Deed Book 399, Page 646; thence along the southerly line of said 2.617 acre tract of land, S. 84 deg. 55' 58" E. a distance
of 211.97 feet to an iron pipe set at the southeast corner of the aforementioned 2.617 acre tract of land; thence S. 5 deg. 4' 2" W. a distance of 280.21 feet to an iron pipe set on the line common to Farm Lot 28 and Farm Lot 29; thence along the said lot
line, N. 84 deg. 19' 58" W. a distance of 212.00 feet to THE TRUE PLACE OF BEGINNING, containing 1.36 acres, more or less, but subject to all legal highways. Leaving in the above described tract, 2.007 acres, more or less.

PARCEL II:

Being in the City of Delaware, County of Delaware, and State of Ohio, being in Range 19, Township 5, Section 4, Part of Lot 28, U.S. Military Land.

Beginning at a hub stake set on the south right of way line of State Route No. 36, said stake bears S. 65° - 20' E., 362.76 feet and South 5° -02' East, 47.66 feet from the point of intersection of the west line of Lot 28 and the centerline of State Route No. 36; thence S. 62° - 48' E., along the south right of way line of State Route 36, 161.97 feet to an iron pipe; thence S. 5° - 02' W., 260.00 feet to an iron pipe; thence N. 84° - 58' W., 150 feet to an iron pipe; thence N. 5° - 02' E., 321.11 feet to the point of beginning.

Containing 1.0 acres of land. Subject to all legal highways and easements of record.

PARCEL III:

Situated in the City of Delaware, County of Delaware, and State of Ohio, being a part of Farm Lot 28, Quarter Township 4, Township 5, Range 19, U.S. Military Lands, and being more particularly described as follows:

Commencing at a stone found at the corner common to Farm Lots 14, 15, 28 and 29, being Point "N" as shown in Survey Volume 7, Page 440, Delaware County Engineer's Office, thence along the common line of Farm Lots 28 and 29, South 84° 19' 58" East a distance of 326.68 feet to an iron pipe found at the most southeasterly corner of a 5.984 acre tract of land owned by Ralph R. and Marie J. Grooten as described in Deed Book 313, Page 664; thence along the easterly line of said 5.984 acre tract of
land, North 05° 04' 02" East a distance of 371.72 feet to an iron pipe found at the southwest corner of a 1.0 acre tract of land owned by Ralph R. and Marie J. Grooten as described in Deed Book 305, Page 207, said iron pipe being THE TRUE PLACE OF BEGINNING of the herein described 0.44 acre tract of land; thence along the

south line of said 1.0 acre tract of land, South 84° 48' 48" East a distance of 149.32 feet to an iron pipe found at the southeast corner of said 1.0 acre tract, thence along the east line of said 1.0 acre tract, North 05° 12' 40" East (passing over an iron pipe found
at 260.00 feet) a total distance of 315.78 feet to a railroad spike found in the centerline of U.S. Route 36 and State Route 37; thence along the centerline of said U.S. Route 36 and State Route 37, South 65° 21' 00" East a distance of 53.02 feet to a railroad spike set; thence South 05° 12' 40" W (passing over an iron pipe set at 56.09 feet) a total distance of 318.11 feet to an iron pipe set; thence North 84° 48' 48" West a distance of 199.27 feet to an iron pipe set on the east line of the aforementioned 5.984 acre tract of land described in Deed Book 313, Page 664; thence

along the east line of said 5.984 acre tract of land, North 05° 04' 02" East a distance of 20.00 feet to The True Place of Beginning, containing 0.44 acre, subject to all legal highways.

Being a part of an original 51.483 acre tract of land as described in Deed Book 389, Page 1, and referenced to a plat in Plat Book 10, Page 170.

PARCEL IV:

Situated in the State of Ohio, County of Delaware, and City of Delaware:

Being Lot No. 10280 of Glennwood Commons, as the same is numbered and delineated upon the recorded plat thereof, of record in O.R. Vol. 814, Pages 229-237 and Cabinet 4, Slides 2-2H, Recorder's Office, Delaware County, Ohio.

PARCEL V:

Situated in the State of Ohio, County of Delaware, City of Delaware, lying in Farm Lot 28, Section 4, Township 5, Range 19, United States Military District, being part of Lot 10279 of that subdivision entitled "Glenwood Commons" of record in Cabinet 4, Slides 2-2H as conveyed to City of Delaware by deed of record in Deed Book 450, Page 568 (all references refer to the records of the Recorder's Office, Delaware County, Ohio), and described as follows:

Beginning, for reference, at a stone found marking the common corner of Farm Lots 14, 15, 28 and 29, being the southwesterly corner of that original 1.36 acre tract as conveyed to Delaware Rural Electric Cooperative, Inc. by deed of record in Deed Book 542, Page 780, the southeasterly corner of that original 31.036 acre tract as conveyed to C-N & L, Inc. by deed of record in Deed Book 553, Page 98, and in the northerly line of said Lot 10279;

Thence South 86° 17' 40" East, with the common line to said Farm Lots 28 and 29, being a northerly line of said Lot 10279, a southerly line of said 1.36 acre tract and that 2.007 acre tract as conveyed CC Land Development, LLC by deed of record in Official Record 836, Page 2752, a distance of 326.68 feet to an iron pin found at the southeasterly corner of said 2.007 acre tract, being the TRUE POINT OF BEGINNING;

Thence North 03° 06' 20" East, with the common line of said 2.007 acre tract and said Lot 10279, a distance of 101.72 feet to an iron pin set at the southwesterly corner of Lot 10280 of said "Glenwood Commons" as conveyed to CC Land Development, LLC by deed of record in Official Record 836, Page 2752;

Thence South 86° 46' 30" East, with the common line of said Lots 10280 and 10279, a distance of 138.06 feet to an iron pin set on the westerly right of way line of Mill Run Crossing of record in Cabinet 4, Slides 2 thru 2H;

Thence South 07° 43' 49" East, with the common line of said Lot 10279 and said westerly right of way line, a distance of 104.96 feet to an iron pin set on the common line of Farm Lots 28 and 29;

Thence North 86° 17' 40" West, with said common Farm Lot line and across said Lot 10279, a distance of 157.80 feet to the TRUE POINT OF BEGINNING and containing 0.348 acre of land, more or less.

Subject, however, to all legal rights-of-way and/or easements, if any, of previous record.

Iron pins set, where indicated, are iron pipes, thirteen sixteenths (13/16) inch inside diameter, thirty (30) inches long with a plastic plug placed in the top bearing the initials EMHT INC.

The bearings described herein are based on a portion of the centerline of State Route 37/U.S. Route 36, having a bearing of South 67° 27' 27" East.

SURVEYOR'S NOTES

MISCELLANEOUS NOTES:
As used in this certification, to certify means to state a professional opinion of the conditions regarding those facts or findings which are the subject of the certification and does not constitute a guaranty or warranty, either expressed or implied.

Violations of zoning ordinances, restrictions or other rules and regulations are determined and enforced by the zoning and planning boards of the community in which the property is located.

The boundary lines of the subject properties are contiguous to each other and the property lines of its adjoiners with no gaps, gores or overlaps and is the same premises surveyed and described in the title commitment, Commitment No. 19000080285, as further referenced hereon.

The site has direct access to Mill Run Crossing a publicly dedicated roadway and Sunbury Road (S.R. 36/37) a publicly accepted roadway.

The property is being utilized for commercial purposes.

TABLE A NOTES:
Item 10 - There are no building walls contiguous with a boundary line of the subject premises.
Item 16 - at the time of this survey, there was no observed surface evidence of earth moving work, building construction or additions,
Item 17 - at the time of this survey, there was no observed evidence of any recent changes in street right-of-way nor any street or sidewalk construction.
Item 18 - There was no observed delineation of wetlands by a qualified specialist hired by the client. No apparent wetlands are located on the subject property according to the U.S. Fish and Wildlife Service National Wetlands Inventory located at www.fws.gov/wetlands.

UTILITY NOTE
The location, type and size of utilities and structures indicated on this survey drawing are a compilation of information furnished by the respective utility companies, field markings from locating services provided by the utility companies, and topographic data obtained at the time of our field survey. Utilities not marked in the field are labeled "per plan" on the survey and may be shown from information provided by the respective utility company, and not from an actual construction drawing. The location of facilities marked by an underground locating service are subject to a tolerance zone as specified by the Common Ground Alliance (CGA) Best Practices guidelines. As such, the utility locations indicated are not necessarily complete or correct, since existing utilities may not exist in the locations shown, and other utilities may exist that are not shown.

Field locating services, furnished by the utility companies, do not provide any depth of marked facilities.

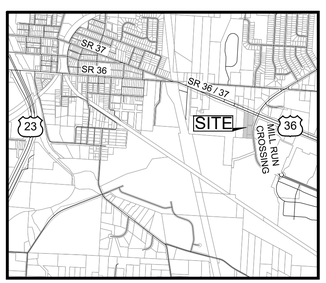
Electric pedestals, electric transformers, lighting system and telephone closures may have been found during the field investigation. No field markings or utility drawings were provided to the surveyor depicting underground or overhead facilities that may connect to these services boxes.

ZONING:
Property is Currently Zoned B-3 (Community Business District) and B-4 (General Business District) per City of Delaware Planning & Zoning Department. See Zoning Codes for Restrictions not Shown.

FLOOD INFORMATION:
By graphic depiction only: The subject property is in Zone X (areas determined to be outside of the 0.2% annual chance floodplain) on Flood Insurance Rate Map, Panel 116 of 295, Delaware County, Ohio and Incorporated Areas, Map No. 39041C0166 L (Effective Date: February 17, 2016). No field work specific to determining this zone was performed.

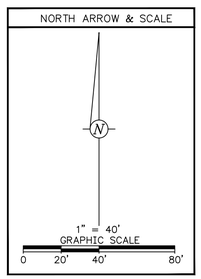
POSSIBLE OBSERVED ENCROACHMENTS:

PARKING TABLE:
12 Regular Parking Spaces
1 handicapped Parking Spaces
13 Total Parking Spaces



LOCATION MAP
NO SCALE

NORTH ARROW & SCALE



SCHEDULE "B" ITEMS

STEWART TITLE GUARANTY COMPANY
COMMITMENT NO. 19000080285
EFFECTIVE DATE: SEPTEMBER 12, 2019 AT 7:00 A.M.

The following document applies to subject premises and are as shown:
Item 8 - D.B. 302, Pg. 107 (perpetual highway easement),
Item 11 - D.B. 302, Pg. 484 (perpetual highway easement),
Item 14 - O.R. 208, Pg. 2632,
Item 15 - O.R. 208, Pg. 2636,
Item 16 - O.R. 814, Pg. 215, and
Item 17 - P.C. 4, Slds. 2-2H and recorded in O.R. 814, Pg. 229.
NOTE: Item 17 - P.C. 4, Slds. 2-2H and recorded in O.R. 814, Pg. 229 indicates a "Conservation Easement to be recorded subsequent to Recordation of this Plat" through a portion of Lot 10279. The easement is not defined and is vaguely shown. It is unclear if said Conservation easement document was recorded.

Item 9 - D.B. 302, Pg. 429 is vaguely defined and is shown based on interpreting the easement language within the documents.

Item 10 - D.B. 302, Pg. 433 is vaguely defined and may apply to subject premises. Not plotted.

Item 12 - D.B. 325, Pg. 422 is blanket in nature and may apply to subject premises. The easement is for single poles and appurtenances with no defined location. Not Plotted.

Item 13 D.B. 587, Pg. 202 is a Right of Entry Agreement and applies to subject premises. Not plotted.

Item 18 - O.R. 814, Pg. 383 is a Joint Declaration of Stormwater and Wetland Park Easement and Maintenance Agreement. The area is not clearly defined and may apply to subject premises.

In my opinion, the following documents do not apply to subject premises:
Item 19 - O.R. 31, Pg. 253,
Item 20 - O.R. 31, Pg. 259,
Item 21 - O.R. 31, Pg. 265,
Item 22 - O.R. 31, Pg. 271, and
Item 23 - O.R. 31, Pg. 277.

ALTA/NSPS LAND TITLE CERTIFICATION

To: Stewart Title Guaranty Company,
CC Land Development, LLC, an Ohio limited liability company,
Morse Road Development, LLC, an Ohio limited liability company,
Sheetz, Inc., a Pennsylvania corporation

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1,2,3,4,6(Zoning reference only),7(a),8,9,10,11,13, 14,16,17 and 18 of Table A thereof.

The field work was completed on October 24, 2019.

STATE OF OHIO
KEVIN L BAXTER S-7697 REGISTERED SURVEYOR

Kevin L. Baxter ~ Ohio Surveyor No. 7697 Date: 01/15/2020

ALTA LEGEND AND SYMBOLS

EXISTING SYMBOLS LEGEND

Sign	SIGN	C.D.	CABLE TELEVISION DROP
Sign	STREET SIGN	C.P.	CABLE TELEVISION PEDESTAL
	AREA LIGHT	G.V.	GAS VALVE
	YARD LIGHT	G.S.	GAS SERVICE
	LIGHT POLE	G.M.	GAS METER
	LIGHT POLE W/SQR. BASE		GAS MARKER
	LIGHT POLE W/RND. BASE	C.O.	CLEAN OUT
	ELECTRIC GUY	Stm CB TC 708.43	CATCH BASIN W/TOP OF CASTING ELEV.
	ELECTRIC MARKER	Stm. Inlet TC 707.28	CURB INLET W/TOP OF CASTING ELEV.
E.T.	ELECTRIC TRANSFORMER	Stm CB w/Underdrain	CATCH BASIN W/ UNDER DRAIN LINES
E.M.	ELECTRIC METER	Stm. MH TC 708.43	STORM MANHOLE W/TOP OF CASTING ELEV.
E.D.	ELECTRIC DROP	San. MH TC 708.43	SANITARY MANHOLE W/TOP OF CASTING ELEV.
E.P.B	ELECTRIC PULL BOX	DS	DOWN SPOUT
E.P.	ELECTRIC PEDESTAL	RD	ROOF DRAIN
E.O.	ELECTRIC OUTLET		HEATING/COOLING UNITS
T.C.	TELEPHONE CLOSURE	Bo	BOLLARD
T.D.	TELEPHONE DROP	WP	WOOD POST
T.B.	TELEPHONE PULL BOX	MP	METAL POST
T.P.	TELEPHONE PEDESTAL		MAIL BOX
	TELEPHONE POLE		FLAGPOLE
	UTILITY POLE	g	EXISTING GAS LINE
P.B.	PULL BOX	w	EXISTING WATER LINE
Traffic P.B.	TRAFFIC PULL BOX	uge	EXISTING UNDERGROUND ELECTRIC LINE
Traffic C.B.	TRAFFIC CONTROL BOX	ohe	EXISTING OVERHEAD ELECTRIC LINE
	TRAFFIC SIGNAL	utl	EXISTING UNDERGROUND TELEPHONE LINE
	TRAFFIC POLE	ohtl	EXISTING OVERHEAD TELEPHONE LINE
	TRAFFIC POLE W/ WALK	ohcatv	EXISTING OVERHEAD CABLE TELEVISION LINE
Spr.	SPRINKLER	ucatv	EXISTING UNDERGROUND CABLE TELEVISION LINE
W.V.	WATER VALVE	710	EXISTING INDEX CONTOUR
F.H.	FIRE HYDRANT	709	EXISTING INTERMEDIATE CONTOUR
W.M.	WATER METER		EXISTING FENCE LINE
W.S.	WATER SERVICE		EXISTING GUARDRAIL
W.C. Valve	WATER CONTROL VALVE		3/4" I.D. Iron Pipe Set, 30" in length, w/Cap Stamped "BIRD & BULL, INC." Unless Otherwise Shown.
I.C. Valve	IRRIGATION CONTROL VALVE		

OHIO Utilities Protection SERVICE
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www.oups.org

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3500 Snouffer Rd., Ste.225
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WWW.BIRDBULL.COM

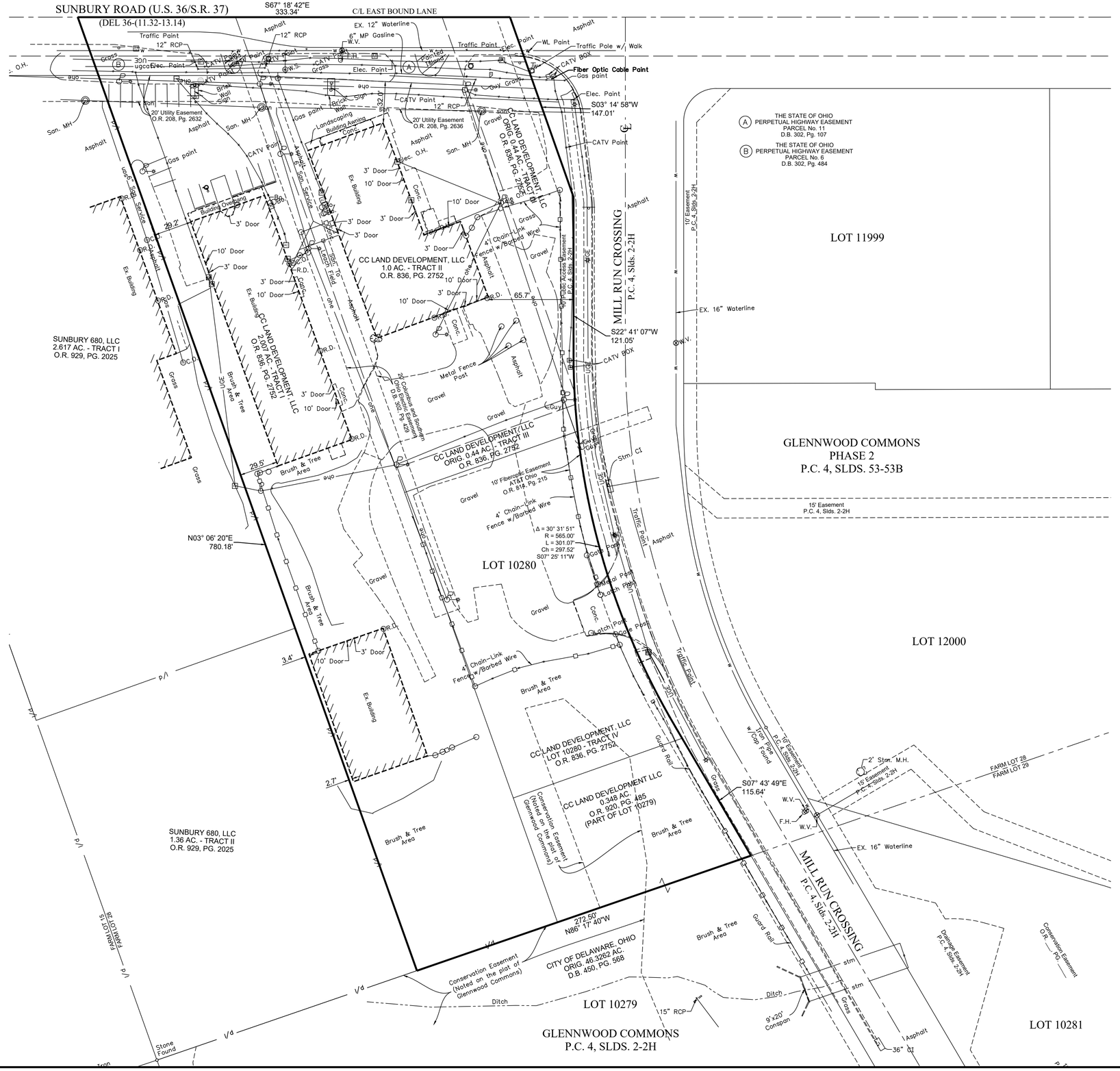
CC LAND DEVELOPMENT LLC
O.R. 836, PG. 2752 & O.R. 920, PG. 485

ALTA/NSPS LAND TITLE SURVEY
AT 700-710 SUNBURY ROAD (S.R. 36/37)
CITY OF DELAWARE, DELAWARE CO., OHIO

4.596 AC. IN FARM LOT 28, QTR. TWP 4, T. 5 N., R. 19 W., U.S.M.L.

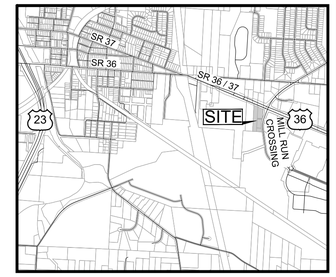
SCALE: 1" = 40'		JOB NO. 19-165	7
DWN: KLB	CKD:	DECEMBER 17, 2019	

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NORTH ARROW & SCALE

1" = 40'
GRAPHIC SCALE
0 20' 40' 80'



LOCATION MAP
NO SCALE

EXISTING SYMBOLS LEGEND

Sign	SIGN	C.D.	CABLE TELEVISION DROP
Sign	STREET SIGN	C.P.	CABLE TELEVISION PEDESTAL
	AREA LIGHT	G.V.	GAS VALVE
	YARD LIGHT	G.S.	GAS SERVICE
	LIGHT POLE	G.M.	GAS METER
	LIGHT POLE W/SQR. BASE		GAS MARKER
	LIGHT POLE W/RND. BASE	C.O.	CLEAN OUT
	ELECTRIC GUY	Stm CB TC 708.43	CATCH BASIN W/TOP OF CASTING ELEV.
	ELECTRIC MARKER	Stm. Inlet TC 707.28	CURB INLET W/TOP OF CASTING ELEV.
E.T.	ELECTRIC TRANSFORMER	Stm. MH TC 708.43'	STORM MANHOLE W/TOP OF CASTING ELEV.
E.M.	ELECTRIC METER	San. MH TC 708.43	SANITARY MANHOLE W/TOP OF CASTING ELEV.
E.D.	ELECTRIC DROP	DS	DOWN SPOUT
E.P.B	ELECTRIC PULL BOX	RD	ROOF DRAIN
E.P.	ELECTRIC PEDESTAL	×708.53 G	EXISTING ELEV. @ GUTTER
E.O.	ELECTRIC OUTLET	×707.87	SPOT ELEV.
T.C.	TELEPHONE CLOSURE	Bo	BOLLARD
T.D.	TELEPHONE DROP	WP	WOOD POST
T.B.	TELEPHONE PULL BOX	MP	METAL POST
T.P.	TELEPHONE PEDESTAL		MAIL BOX
	TELEPHONE POLE		FLAGPOLE
	UTILITY POLE	g	EXISTING GAS LINE
P.B.	PULL BOX	w	EXISTING WATER LINE
Traffic P.B.	TRAFFIC PULL BOX	uge	EXISTING UNDERGROUND ELECTRIC LINE
Traffic C.B.	TRAFFIC CONTROL BOX	ohe	EXISTING OVERHEAD ELECTRIC LINE
	TRAFFIC SIGNAL	ugt	EXISTING UNDERGROUND TELEPHONE LINE
	TRAFFIC POLE	oht	EXISTING OVERHEAD TELEPHONE LINE
	TRAFFIC POLE W/ WALK	ohcatv	EXISTING OVERHEAD CABLE TELEVISION LINE
Spr.	SPRINKLER	ucatv	EXISTING UNDERGROUND CABLE TELEVISION LINE
W.V.	WATER VALVE	710	EXISTING INDEX CONTOUR
F.H.	FIRE HYDRANT	709	EXISTING INTERMEDIATE CONTOUR
W.M.	WATER METER		EXISTING FENCE LINE
W.S.	WATER SERVICE		EXISTING GUARDRAIL
W.C. Valve	WATER CONTROL VALVE		
I.C. Valve	IRRIGATION CONTROL VALVE		

ALTA LEGEND AND SYMBOLS

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E.P.B	ELECTRIC PULL BOX	DS	DOWN SPOUT
E.P.	ELECTRIC PEDESTAL	RD	ROOF DRAIN
E.O.	ELECTRIC OUTLET		HEATING/COOLING UNITS
T.C.	TELEPHONE CLOSURE	Bo	BOLLARD
T.D.	TELEPHONE DROP	WP	WOOD POST
T.B.	TELEPHONE PULL BOX	MP	METAL POST
T.P.	TELEPHONE PEDESTAL		MAIL BOX
	TELEPHONE POLE		FLAGPOLE
	UTILITY POLE	g	EXISTING GAS LINE
P.B.	PULL BOX	w	EXISTING WATER LINE
Traffic P.B.	TRAFFIC PULL BOX	uge	EXISTING UNDERGROUND ELECTRIC LINE
Traffic C.B.	TRAFFIC CONTROL BOX	ohe	EXISTING OVERHEAD ELECTRIC LINE
	TRAFFIC SIGNAL	ugt	EXISTING UNDERGROUND TELEPHONE LINE
	TRAFFIC POLE	oht	EXISTING OVERHEAD TELEPHONE LINE
	TRAFFIC POLE W/ WALK	ohcatv	EXISTING OVERHEAD CABLE TELEVISION LINE
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I.C. Valve	IRRIGATION CONTROL VALVE		3/4" I.D. Iron Pipe Set, 30" in length, w/Cap Stamped "BIRD & BULL, INC." Unless Otherwise Shown.

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CC LAND DEVELOPMENT LLC
O.R. 836, PG. 2752 & O.R. 920, PG. 485

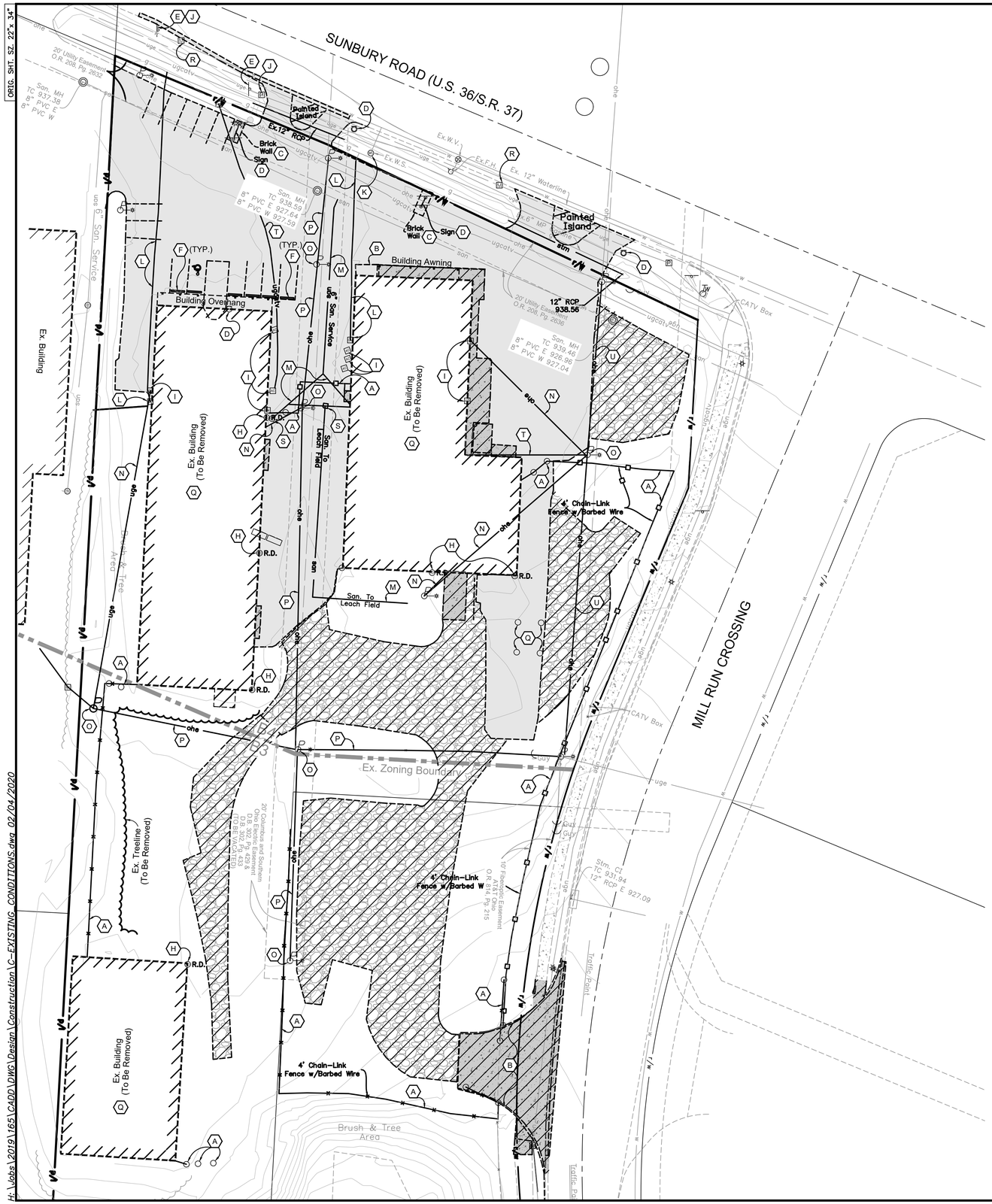
ALTA/NSPS LAND TITLE SURVEY
AT 700-710 SUNBURY ROAD (S.R. 36/37)
CITY OF DELAWARE, DELAWARE CO., OHIO

4.596 AC. IN FARM LOT 28, QTR. TWP 4, T. 5 N., R. 19 W., U.S.M.L.

SCALE: 1" = 40'		JOB NO. 19-165	8
DWN: KLB	CKD:	DECEMBER 17, 2019	

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ORIG. SHT. SZ. 22"x 34"



LEGEND

- ASPHALT PAVEMENT TO BE REMOVED AND DISPOSED OF.
- CONCRETE PAVEMENT TO BE REMOVED AND DISPOSED OF.
- EXISTING BUILDING SLAB AND FOUNDATIONS TO BE REMOVED AND DISPOSED OF.
- EXISTING GRAVEL PAVEMENT TO BE REMOVED AND DISPOSED OF.
- TREES OR SHRUBS TO BE REMOVED. COORDINATE TREE REMOVAL WITH LANDSCAPE PLANS.
- PROPOSED SAWCUT LINE

CODED NOTES

(A) EXISTING FENCE AND FENCE POSTS TO BE REMOVED AND DISPOSED OF.

(B) EXISTING CURB TO BE REMOVED AND DISPOSED OF.

(C) EXISTING BRICK WALL TO BE REMOVED AND DISPOSED OF.

(D) EXISTING SIGN TO BE REMOVED AND DISPOSED OF.

(E) EXISTING SIGN TO BE REMOVED FOR RELOCATION. COORDINATE WITH CITY OF DELAWARE FOR FINAL LOCATION.

(F) EXISTING CONCRETE PARKING BLOCK TO BE REMOVED AND DISPOSED OF.

(G) EXISTING STORM SEWER TO BE REMOVED AND DISPOSED OF.

(H) EXISTING ROOF DRAIN TO BE REMOVED AND DISPOSED OF.

(I) EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND DISPOSED OF.

(J) EXISTING ELECTRIC / TRAFFIC EQUIPMENT TO BE RELOCATED. COORDINATE WITH CITY OF DELAWARE FOR FINAL LOCATION AND RE-CONNECTION.

(K) EXISTING WATER SERVICE TO BE REMOVED AND DISPOSED OF UP TO CORP STOP. CONTRACTOR TO FIELD VERIFY SIZE AND CONDITION OF EXISTING SERVICE AND CONFIRM ADEQUACY FOR RE-USE AS PROPOSED DOMESTIC WATER SERVICE.

(L) EXISTING GAS SERVICE TO BE REMOVED AND DISPOSED OF. CONTRACTOR TO FIELD VERIFY SIZE AND CONDITION OF EXISTING SERVICE AND CONFIRM ADEQUACY FOR RE-USE AS PROPOSED GAS SERVICE.

(M) EXISTING SANITARY SERVICE TO BE REMOVED AND DISPOSED OF.

(N) EXISTING SITE ELECTRIC SERVICE TO BE REMOVED AND DISPOSED OF.

(O) *EXISTING POWER POLE TO BE REMOVED AND DISPOSED OF PER UTILITIES COMPANIES SPECIFICATIONS.*

(P) *EXISTING OVERHEAD UTILITIES TO BE REMOVED PER UTILITIES COMPANIES SPECIFICATIONS.*

(Q) EXISTING STRUCTURE SLAB AND FOUNDATIONS TO BE REMOVED AND DISPOSED OF.

(R) EXISTING MAIL BOX TO BE REMOVED AND DISPOSED OF.

(S) EXISTING SANITARY STRUCTURE TO BE REMOVED AND DISPOSED OF.

(T) EXISTING COMMUNICATIONS SERVICE TO BE REMOVED AND DISPOSED OF.

(U) *EXISTING OVERHEAD UTILITIES TO BE RELOCATED TO PROPOSED POWER POLE, REFER TO SHEET 14. COORDINATE RELOCATION WITH ALL UTILITIES COMPANIES PRIOR TO CONSTRUCTION.

NOTE:
SITE WAS PREVIOUSLY SERVED BY A SEPTIC SYSTEM WITH LEACH FIELD LEADING SOUTH BETWEEN BUILDINGS 700 AND 710 SUNBURY ROAD. CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THAT SYSTEM AND LEACH FIELD HAVE BEEN PROPERLY REMOVED PER DELAWARE AND OHIO EPA REQUIREMENTS. APPROXIMATE LOCATION IS SHOWN PER 1963 RECORD PLANS.

*NOTE:
REMOVAL OF ALL OVERHEAD UTILITIES AND ASSOCIATED POLES MUST BE COORDINATED WITH ALL UTILITY COMPANIES SERVED. SERVICE MUST BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES PER UTILITY COMPANIES' STANDARDS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL NECESSARY RE-ROUTING OF UTILITIES PRIOR TO OR CONCURRENTLY WITH REMOVAL OF UTILITIES, AS SPECIFIED BY UTILITY COMPANIES.

SCALE: 1" = 30'
0 30 60 90
GRAPHIC SCALE

Bird+Bull Engineers & Surveyors
3500 Snouffer Road, Suite 225
Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
WWW.BIRDBULL.COM

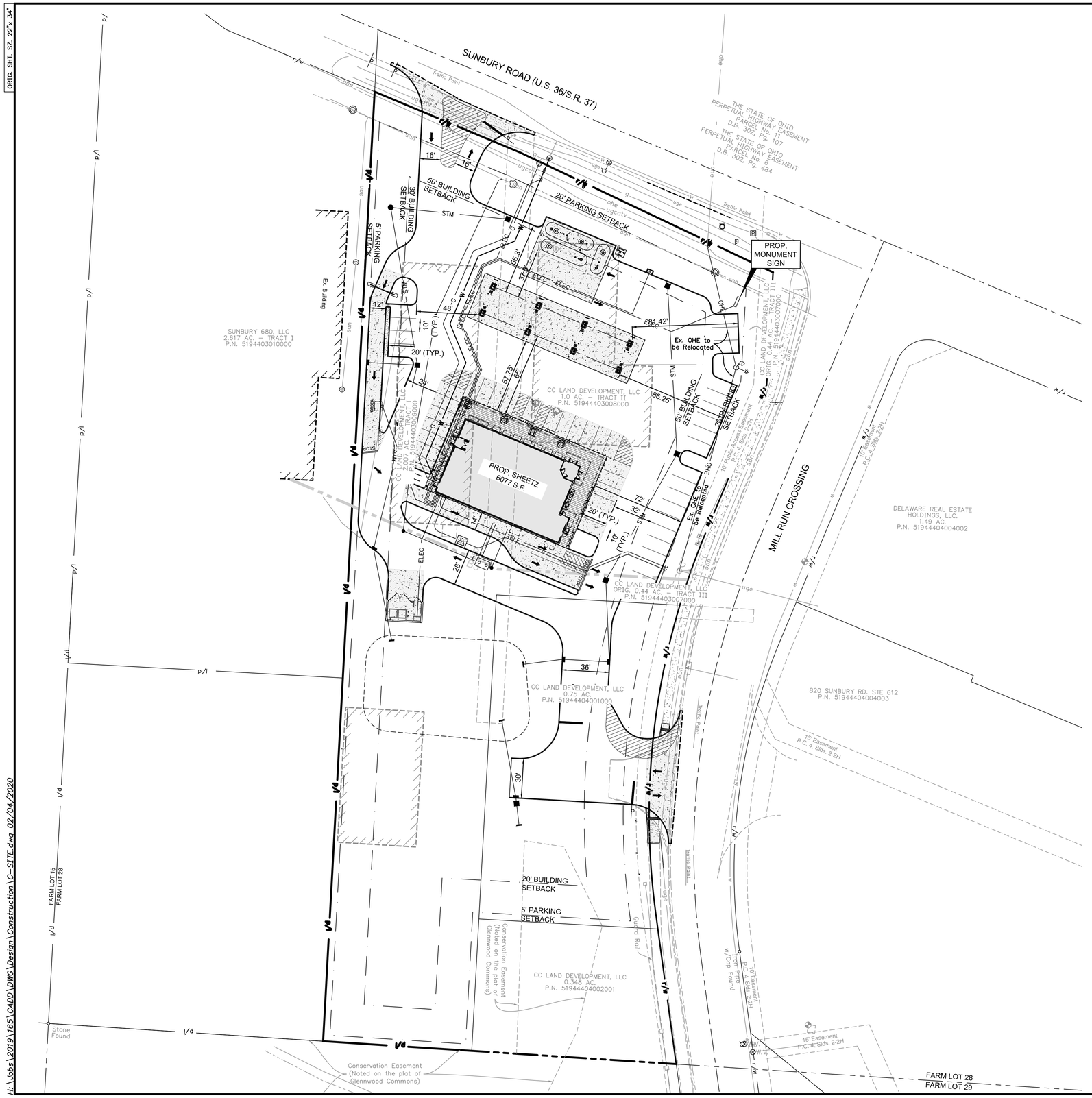
SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: 1" = 30'			JOB NO. 19-165	9
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

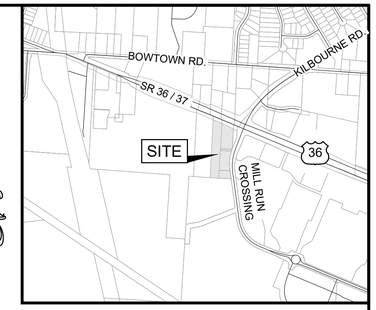
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ORIG. SHT. SZ. 22"x 34"



SITE DATA TABLE

TOTAL SITE AREA	3.88 AC.
TOTAL DISTURBED AREA	3.06 AC.
PRE-DEVELOPED IMPERVIOUS	2.17 AC.
POST-DEVELOPED IMPERVIOUS	1.97 AC.



LOCATION MAP
NO SCALE

SITE DEVELOPMENT INFORMATION

ZONING:

PROPERTY OWNER:	CC LAND DEVELOPMENT, LLC
PROPERTY USE:	QUICK SERVICE RESTAURANT WITH FUEL CENTER
SITE ACREAGE:	3.88 AC
EXISTING ZONING:	B-4, GENERAL BUSINESS DISTRICT
ADJACENT ZONING NORTH:	B-3, COMMUNITY BUSINESS DISTRICT
ADJACENT ZONING SOUTH:	B-3, COMMUNITY BUSINESS DISTRICT AND B-4, GENERAL BUSINESS DISTRICT
ADJACENT ZONING EAST:	B-3, COMMUNITY BUSINESS DISTRICT
ADJACENT ZONING WEST:	B-3, COMMUNITY BUSINESS DISTRICT AND B-4, GENERAL BUSINESS DISTRICT
TOTAL EXISTING SITE AREA:	3.88 ACRES
TOTAL DISTURBED AREA:	3.06 ACRES
TOTAL IMPERVIOUS (PRE):	2.17 ACRES
TOTAL IMPERVIOUS (POST):	1.97 ACRES
PARKING / FUEL CANOPY SETBACK:	20' (FRONT) 5' (REAR / SIDE)
BUILDING SETBACK:	50' (FRONT) 30' (REAR / SIDE)
BUILDING COVERAGE:	2.9%
LOT COVERAGE:	50.8%

BUILDING DATA:

PROPOSED BUILDING HEIGHT NOT TO EXCEED 45 FEET

EXISTING BUILDING TO BE REMOVED AND DISPOSED OF

PROPOSED BUILDING

PROPOSED CONCRETE

PROPOSED BRICK PAVERS

PARKING CALCULATIONS

AREA	SQUARE FOOTAGE	MIN. PARKING REQ'D*	TOTAL PARKING PROVIDED	PARKING RATIO
PROPOSED BUILDING	6,077±	31	47	7.73/1000 S.F. 1/129 S.F.

*PER DELAWARE CITY PLANNING AND ZONING CODE, CHAPTER 1161, 1 SPACE IS REQUIRED FOR EVERY 200 S.F. OF RETAIL AND SERVICE ESTABLISHMENT SPACE.

ENGINEER/SURVEYOR

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PHONE: 614-761-1661
FAX: 614-761-1328
CONTACT: ANDREW GARDNER, P.E.
E-MAIL: AGARDNER@BIRDBULL.COM

OWNER

CC LAND DEVELOPMENT, LLC
710 SUNBURY ROAD
DELAWARE, OHIO 43015

DEVELOPER

SKILKEN GOLD REAL ESTATE DEVELOPMENT
4270 MORSE ROAD
COLUMBUS, OHIO 43230
PHONE: 614-342-6632
CONTACT: SARAH GOLD
E-MAIL: SGOLD@SKILKENGOLD.COM

SCALE: 1" = 40'
0 40 80 120
GRAPHIC SCALE

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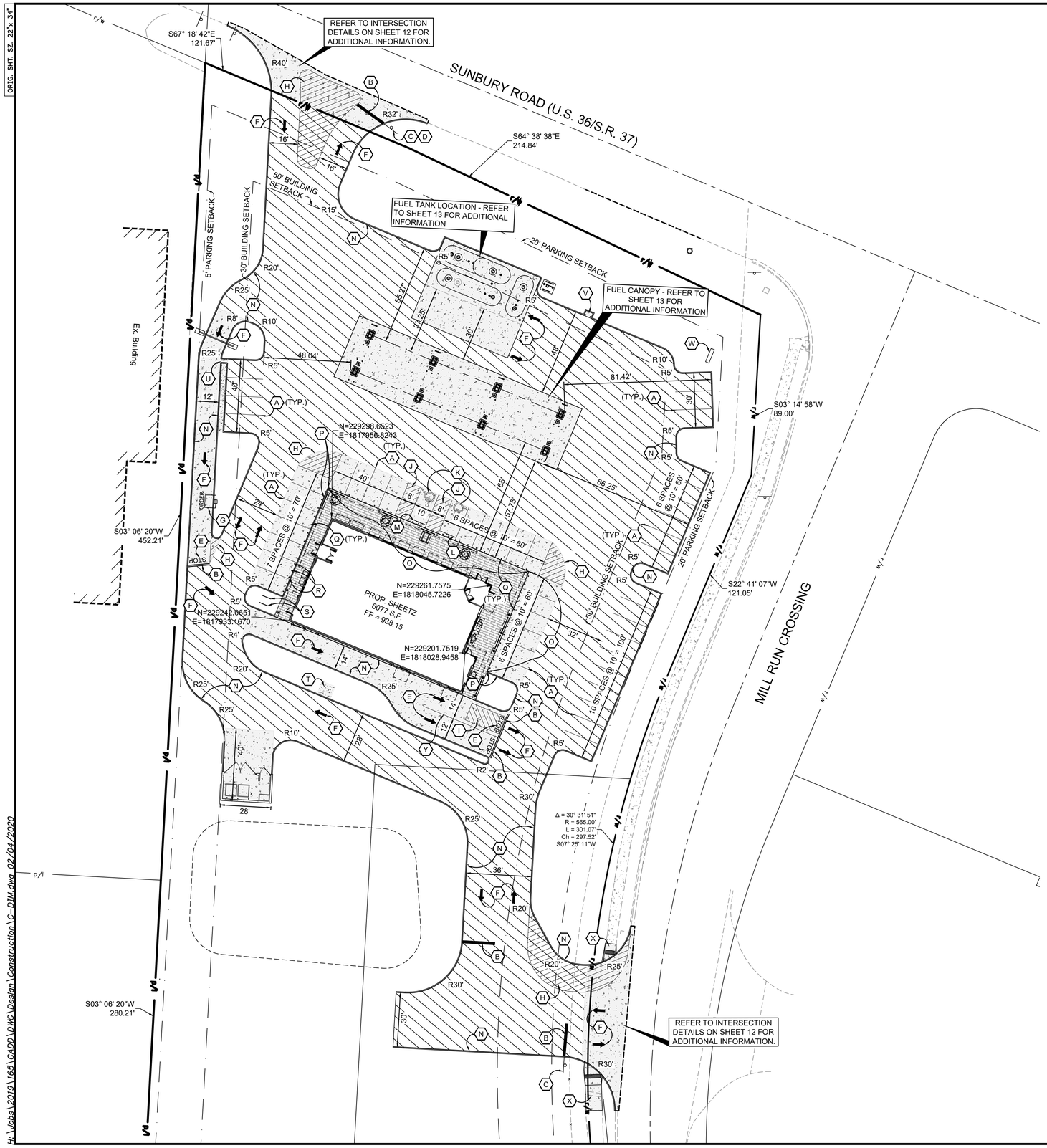
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SITE PLAN

SCALE: 1" = 40'			JOB NO. 19-165	10
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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ORIG. SHT. SZ. 22"x 34"

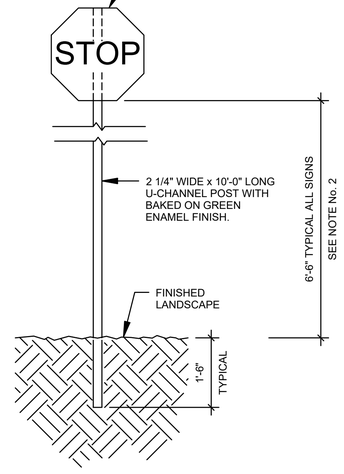


LEGEND

- PROPOSED CONCRETE PAVEMENT PER DETAIL ON SHEET 3.
- PROPOSED BRICK PAVERS.
- PROPOSED ASPHALT PAVEMENT PER DETAIL ON SHEET 3.
- PROPOSED SAWCUT LINE

CODED NOTES

- (A) 4" YELLOW CHANNELIZING LINE FOR PARKING STALL.
- (B) 24" WHITE STOP BAR.
- (C) STOP SIGN PER DETAIL ON THIS SHEET.
- (D) "RIGHT TURN ONLY" SIGN.
- (E) WORD ON PAVEMENT "STOP".
- (F) ARROW ON PAVEMENT (YELLOW).
- (G) ORDER BOX / KIOSK SHOWN FOR REFERENCE ONLY. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
- (H) YELLOW TRANSVERSE STRIPING FOR NO PARKING AREA.
- (I) RED TRANSVERSE STRIPING FOR DRIVE THRU PICK-UP ZONE.
- (J) BLUE TRANSVERSE STRIPING FOR HANDICAP AREA.
- (K) BLUE HANDICAP SYMBOL PER DEATIL ON SHEET 3.
- (L) HANDICAP PARKING SIGN PER DETAIL ON SHEET 3.
- (M) "VAN ACCESSIBLE" HANDICAP PARKING SIGN PER DETAIL ON SHEET 3.
- (N) STRAIGHT 18" CONCRETE CURB PER DETAIL ON SHEET 4.
- (O) CONCRETE WALK TO BE CONSTRUCTED FLUSH WITH PROPOSED ASPHALT PAVEMENT ACROSS THIS AREA.
- (P) TAPER CURB FROM 6" REVEAL TO 0" ACROSS THIS AREA.
- (Q) STOREFRONT BUMPER POST PER DETAIL ON SHEET 4.
- (R) STEEL PIPE BOLLARD PER DETAIL ON SHEET 5.
- (S) BIKE RACK PER DETAIL ON SHEET 5.
- (T) 8' x 8' TRANSFORMER PAD PER UTILITY COMPANY'S SPECIFICATIONS BY CONTRACTOR.
- (U) 2' WIDE CONCRETE CURB CUT. REFER TO SHEET 11 FOR MORE INFORMATION.
- (V) AIR MACHINE AND PAD PER DETAIL ON SHEET 5.
- (W) PROPOSED MONUMENT SIGN. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
- (X) PROPOSED CURB RAMP.
- (Y) 4" YELLOW LANE LINE.



STOP SIGN
NO SCALE

SCALE: 1" = 30'
0 30 60 90
GRAPHIC SCALE

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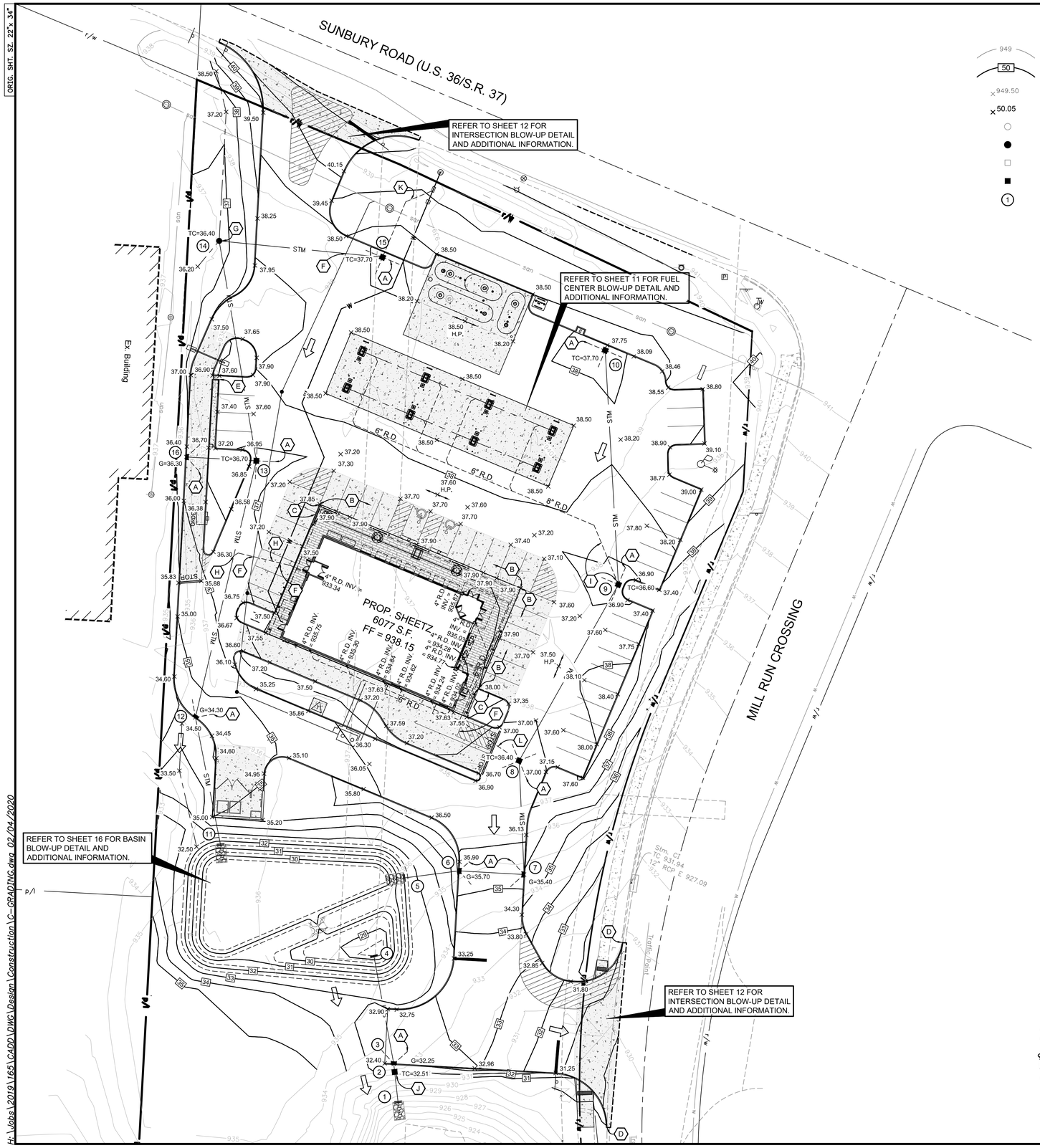
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SITE DIMENSION, STRIPING, SIGNAGE, AND PAVING PLAN

SCALE: 1" = 30'			JOB NO. 19-165	11
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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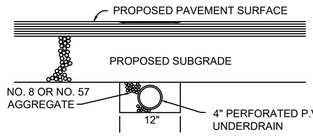
ORIG. SHT. SZ. 22"x 34"



STORM AND GRADING LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- STORM STRUCTURE NUMBER
- EXISTING SANITARY MANHOLE
- PROPOSED SANITARY MANHOLE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING VALVE
- PROPOSED VALVE
- INDICATES DIRECTION OF MAJOR FLOOD ROUTING GREATER THAN 100 ~ YEAR STORM

CODED NOTES



SUBGRADE DRAIN TRENCH DETAIL

(A) INSTALL 10 FOOT LENGTHS (WHERE ALLOWABLE) OF 4" PERFORATED P.V.C. UNDERDRAIN AT ALL STRUCTURES WITHIN PAVEMENT AREAS PER THE ABOVE DETAIL. THE UNDERDRAIN IS TO BE INSTALLED AT A 1.00% GRADE TOWARD THE STRUCTURE, WITH THE UPSTREAM END PLUGGED, AND THE INVERT AT THE STRUCTURE 18" BELOW THE PROPOSED RIM ELEVATION. THE UNDERDRAIN SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC AFTER INSTALLATION.

(B) BRICK PAVERS TO BE CONSTRUCTED FLUSH WITH PROPOSED CONCRETE PAVEMENT ACROSS THIS AREA.

(C) TAPER CURB FROM 6" REVEAL TO 0" ACROSS THIS AREA.

(D) MATCH EXISTING CURB LOCATION AND ELEVATION.

(E) PROPOSED 2' WIDE CURB CUT.

(F) MAINTAIN 18" OF VERTICAL CLEARANCE (OUTSIDE OF PIPE TO OUTSIDE OF PIPE) BETWEEN PROPOSED STORM AND UTILITY.

(G) PROPOSED NYLOPLAST YARD DRAIN.

(H) PROPOSED 4" ROOF DRAIN TO BE BLIND TAPPED INTO PROPOSED STORM SEWER. PROPOSED INVERT = 931.64.

(I) PROPOSED 8" ROOF DRAIN TO BE CORED INTO PROPOSED STORM STRUCTURE AT INVERT = 934.00.

(J) PROPOSED OUTLET CONTROL STRUCTURE PER DETAIL ON SHEET X.

(K) PROPOSED 4" DRAIN FROM METER VAULT TO BE CORED INTO PROPOSED STORM STRUCTURE. PROPOSED INVERT = 934.50. DRAIN SHALL BE RUN AT A MINIMUM SLOPE OF 1.0%.

(L) PROPOSED 8" ROOF DRAIN TO BE CORED INTO PROPSOED STORM STRUCTURE AT INVERT = 933.00.

STORM STRUCTURE COORDINATE TABLE

	PROPOSED		AS-BUILT	
#	NORTHING	EASTING	NORTHING	EASTING
1	228985.4884	1817998.1801		
2	229002.0570	1817996.3170		
3	229006.5359	1817995.8134		
4	229066.1784	1817984.8187		
5	229109.2273	1818001.5853		
6	229113.1354	1818031.8674		
7	229111.1102	1818067.8104		
8	229173.9777	1818065.0793		
9	229271.3624	1818119.9189		
10	229400.7249	1818112.6310		
11	229127.6457	1817900.1115		
12	229197.9827	1817886.2406		
13	229339.7062	1817919.9193		
14	229461.2067	1817899.3652		
15	229452.1539	1817989.6156		
16	229341.8060	1817881.2164		

STORM STRUCTURE BEARING AND DISTANCE TABLE

STRUCTURES	BEARING	DISTANCE
1 - 2	S06°24'56"E	16.67'
2 - 3	N06°24'56"W	4.51'
3 - 4	N10°26'41"W	60.65'
5 - 6	S82°38'46"W	30.53'
6 - 7	S86°46'30"E	36.00'
7 - 8	N02°29'15"E	62.93'
8 - 9	N29°23'06"E	111.76'
9 - 10	N03°13'28"W	129.57'
11 - 12	S11°09'21"E	71.69'
12 - 13	S13°22'04"W	145.67'
13 - 14	N09°36'06"W	123.23'
13 - 16	N86°53'40"W	38.76'
14 - 15	S84°16'19"E	90.70'

NOTE:
ROOF DRAINS TO MAINTAIN A MINIMUM SLOPE OF 1.04% UNLESS OTHERWISE SPECIFIED.

NOTE:
ALL ELEVATIONS ARE PAVEMENT GRADES UNLESS OTHERWISE NOTED. ADD 0.5' FOR TOP OF CURB ELEVATIONS.

NOTE:
ALL CATCH BASINS AND CURB INLETS PROPOSED WITHIN PAVEMENT AREAS, (CONCRETE OR ASPHALT), SHALL BE INSTALLED WITH MINIMUM 12" CONCRETE COLLAR PER ODOT SPECIFICATIONS.

SCALE: 1" = 30'
0 30 60 90
GRAPHIC SCALE

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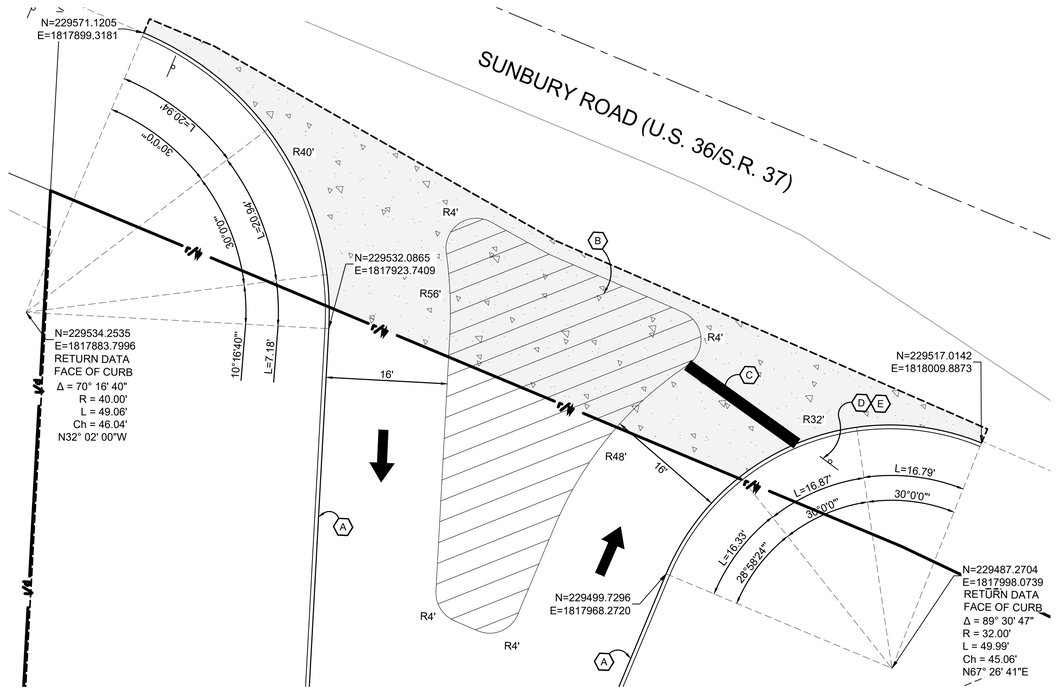
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STORM SEWER AND GRADING PLAN

SCALE: 1" = 30'			JOB NO.	12
DWN:RJB	CKD:AAG	DATE: 02/04/2020	19-165	

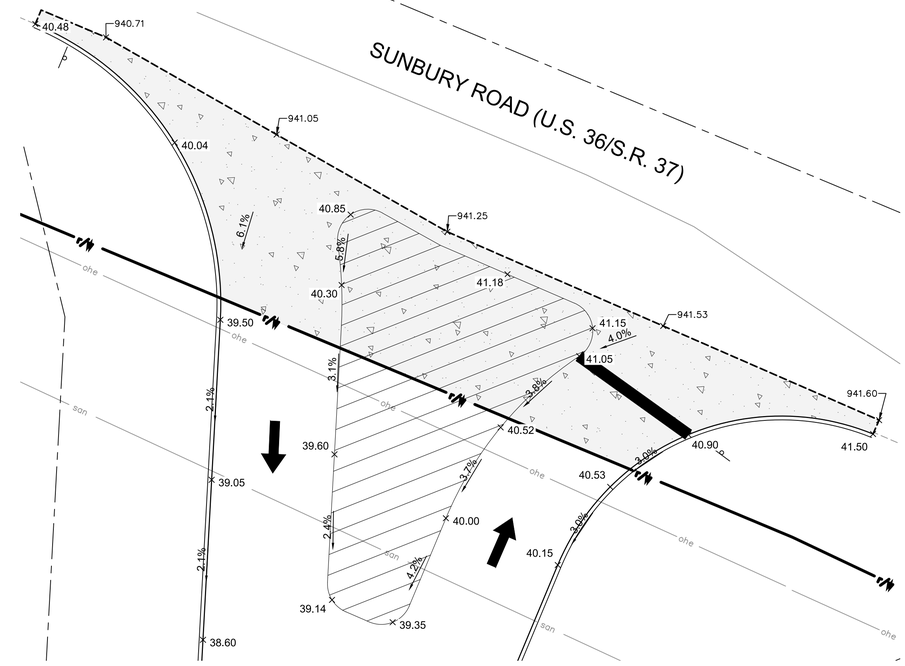
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ORIG. SHT. SZ. 22"x 34"



NORTH ENTRANCE - SITE DIMENSION DETAIL

SCALE: 1" = 10'



NORTH ENTRANCE - SITE GRADING DETAIL

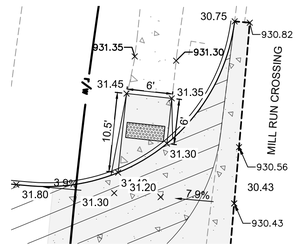
SCALE: 1" = 10'

LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT PAVEMENT TO BE SAWCUT AND REMOVED
- PROPOSED CONCRETE PER DETAIL ON SHEET 3.
- 940.50(Ex) EXISTING SPOT ELEVATION
- 40.50 PROPOSED SPOT ELEVATION
- PROPOSED SAWCUT LINE

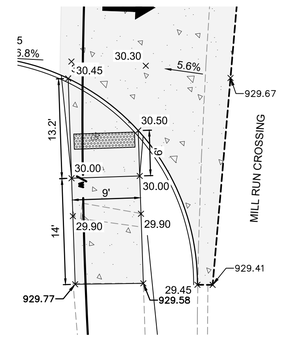
CODED NOTES

- (A) STRAIGHT 18" CONCRETE CURB PER DETAIL ON SHEET 4.
- (B) YELLOW TRASNVERSE STRIPING FOR NO PARKING AREA.
- (C) 24" WHITE STOP BAR.
- (D) STOP SIGN PER DETAIL ON SHEET 10.
- (E) "RIGHT TURN ONLY" SIGN.
- (F) PROPOSED CURB RAMP WITH DETECTABLE WARNING.



RAMP DETAIL - NORTH

SCALE: 1" = 10'



RAMP DETAIL - SOUTH

SCALE: 1" = 10'

NOTE:
ALL ELEVATIONS ARE PAVEMENT GRADES UNLESS OTHERWISE NOTED. ADD 0.5' FOR TOP OF CURB ELEVATIONS.

SOUTH ENTRANCE - SITE DIMENSION DETAIL

SCALE: 1" = 10'

MILL RUN CROSSING

SOUTH ENTRANCE - SITE GRADING DETAIL

SCALE: 1" = 10'

MILL RUN CROSSING

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WWW.BIRDBULL.COM

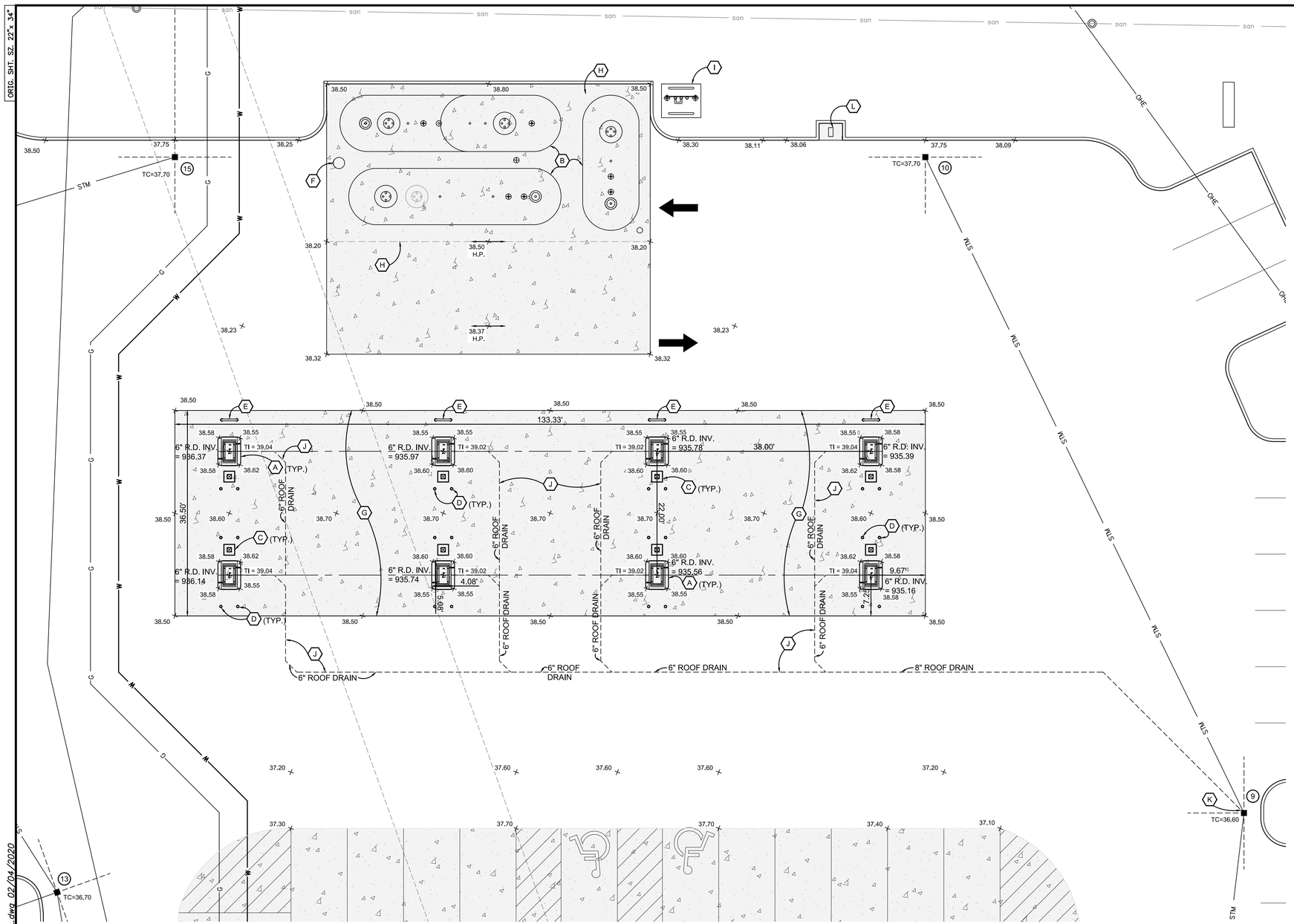
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INTERSECTION GRADING DETAILS

SCALE: 1" = 40'			JOB NO.	
DWN:RJB	CKD:AAG	DATE: 02/04/2020	19-165	13

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ORIG. SHT. SZ. 22"x 34"



LEGEND

949	EXISTING CONTOUR		EXISTING SANITARY MANHOLE
50	PROPOSED CONTOUR		PROPOSED SANITARY MANHOLE
×949.50	EXISTING SPOT ELEVATION		EXISTING FIRE HYDRANT
×50.05	PROPOSED SPOT ELEVATION		PROPOSED FIRE HYDRANT
	EXISTING STORM MANHOLE	⊗	EXISTING VALVE
	PROPOSED STORM MANHOLE	⊗	PROPOSED VALVE
	EXISTING CATCH BASIN		INDICATES DIRECTION OF MAJOR FLOOD ROUTING GREATER THAN 100 ~ YEAR STORM
	PROPOSED CATCH BASIN		
1	STORM STRUCTURE NUMBER		

PROPOSED FUEL CENTER / STORAGE TANK CONCRETE PAVEMENT.

CODED NOTES

- (A) 3' x 5' DISPENSER ISLAND SHOWN FOR REFERENCE ONLY.
- (B) UNDERGROUND STORAGE TANK SHOWN FOR REFERENCE ONLY.
- (C) CANOPY COLUMN SHOWN FOR REFERENCE ONLY.
- (D) 6" DIAMETER PIPE BOLLARD SHOWN FOR REFERENCE ONLY.
- (E) INVERTED U-SHAPED STEEL PIPE GUARD SHOWN FOR REFERENCE ONLY.
- (F) OBSERVATION WELL SHOWN FOR REFERENCE ONLY.
- (G) 6" THICK CONCRETE SLAB UNDER CANOPY. REFER TO CONCRETE PAD DETAIL ON SHEET 3.
- (H) 10" THICK CONCRETE SLAB OVER UNDERGROUND STORAGE TANKS. REFER TO CONCRETE PAD DETAIL ON SHEET 3.
- (I) VENT RISER STACK SHOWN FOR REFERENCE ONLY.
- (J) ROOF DRAIN TO BE RUN AT A MINIMUM SLOPE OF 1.04%. ALL ROOF DRAINS ARE TO BE 6" IN DIAMETER, UNLESS OTHERWISE NOTED.
- (K) PROPOSED 8" ROOF DRAIN TO BE CORED INTO PROPOSED STORM STRUCTURE AT INVERT = 934.00.
- (L) AIR MACHINE AND PAD PER DETAIL ON SHEET 5.

NOTE:
ROOF DRAINS TO MAINTAIN A MINIMUM SLOPE OF 1.04% UNLESS OTHERWISE SPECIFIED.

NOTE:
ALL ELEVATIONS ARE PAVEMENT GRADES UNLESS OTHERWISE NOTED. ADD 0.5' FOR TOP OF CURB ELEVATIONS.

SCALE: 1" = 10'
0 10 20 30
GRAPHIC SCALE

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FUEL CENTER DETAILS

SCALE: 1" = 10'			JOB NO. 19-165	14
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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ORIG. SHT. SZ. 22"x 34"

SUNBURY ROAD (U.S. 36/S.R. 37)

PROP. 12" STM.

PROP. 6" SAN.

PROP. 2" DOMESTIC WATER

PROP. 2" GAS

PROP. AIR MACHINE AND PAD. REFER TO DETAILS ON SHEET 5.

PROP. MONUMENT SIGN. REFER TO ARCHITECTURAL PLANS

PROP. ORDER KIOSK. REFER TO ARCHITECTURAL PLANS.

PROP. SHEETZ
6077 S.F.
FF = 938.15

6" SAN. INV. = 932.90

6" SAN. INV. = 935.49
4" SAN. INV. = 935.94

6" SAN. INV. = 935.60

PROP. 18" STM.

MILL RUN CROSSING

San. MH
TC 937.38
8" PVC E
8" PVC W

San. MH
TC 938.99
8" PVC E 927.64
8" PVC W 927.59

San. MH
TC 939.46
8" PVC E 926.96
8" PVC W 927.04

Ex.6" MP Gasline

Traffic Paint

Ex. Traffic Pole

CaTV Box

Fiber Optic Cable Paint

STORM AND GRADING LEGEND

949	EXISTING CONTOUR		EXISTING SANITARY MANHOLE
50	PROPOSED CONTOUR		PROPOSED SANITARY MANHOLE
×949.50	EXISTING SPOT ELEVATION		EXISTING FIRE HYDRANT
×50.05	PROPOSED SPOT ELEVATION		PROPOSED FIRE HYDRANT
	EXISTING STORM MANHOLE		EXISTING VALVE
	PROPOSED STORM MANHOLE		PROPOSED VALVE
	EXISTING CATCH BASIN		INDICATES DIRECTION OF MAJOR FLOOD ROUTING GREATER THAN 100 ~ YEAR STORM
	PROPOSED CATCH BASIN		
1	STORM STRUCTURE NUMBER		

CODED NOTES

A. EXISTING DOMESTIC WATER SERVICE TAP TO BE RE-USED FOR PROPOSED 2" DOMESTIC WATER SERVICE. CONTRACTOR TO FIELD VERIFY SIZE AND CONDITION OF EXISTING TAP PRIOR TO CONSTRUCTION.

B. PROPOSED 2" TYPE "K" COPPER DOMESTIC WATER SERVICE PER DELAWARE WTRD-1.2. INSTALL WITHIN 5' OF BUILDING.

C. PROPOSED METER SETTING / PIT PER DELAWARE WTRD-1.2. PIT SHALL BE 18" x 36" WHITE ADS, OR APPROVED EQUAL.

D. BACKFLOW PREVENTOR (BFP) TO BE INSTALLED ON PROPOSED 2" DOMESTIC WATER SERVICE. BFP MUST BE ASSE #1013 RPP (REDUCED PRESSURE PRINCIPLE BACKFLOW DEVICE) APPROVED. BFP SHALL BE INSTALLED IN A HOT BOX PER DELAWARE WTRD-20.0.

E. PROPOSED SANITARY SERVICE CONNECTION TO EXISTING 8" SANITARY SEWER. PROPOSED INVERT = 927.68. FIELD VERIFY UTILITY LOCATION AND DEPTH PRIOR TO CONSTRUCTION. PROVIDE 8" x 6" WYE.

F. PROPOSED SANITARY SEWER SERVICE PER DELAWARE SEWD-20.0. SERVICE SHALL BE RUN AT A MINIMUM SLOPE OF 2.08%. INSTALL WITHIN 5' OF BUILDING. SANITARY SERVICES SHALL BE 6" IN DIAMETER UNLESS OTHERWISE NOTED.

G. PROPOSED HEAVY DUTY SANITARY SERVICE CLEAN-OUT.

H. PROPOSED 2,000 GALLON PRECAST CONCRETE GREASE INTERCEPTOR PER DETAIL ON SHEET 5.

I. PROPOSED 2" GAS SERVICE AND METER. CONTRACTOR TO FIELD VERIFY SIZE AND CONDITION OF EXISTING GAS SERVICE FOR RE-USE OF EXISTING SERVICE TAP. CONTRACTOR TO COORDINATE WITH UTILITIES COMPANY.

J. PROPOSED TRANSFORMER TO BE INSTALLED BY UTILITIES COMPANY. SITE CONTRACTOR SHALL PROVIDE 8' x 8' CONCRETE PAD PER TRANSFORMER PAD SPECIFICATIONS. COORDINATE WITH UTILITIES COMPANY.

K. TWO 5" SCHEDULE 40 CONDUITS FOR ELECTRIC SERVICE FROM ELECTRIC DROP TO TRANSFORMER.

L. FOUR 4" SCHEDULE 40 CONDUITS FOR ELECTRIC SERVICE FROM TRANSFORMER INTO BUILDING.

M. ONE 1" SCHEDULE 40 CONDUIT FOR ELECTRIC SERVICE WITH PULL WIRE FROM STORE TO DUMPSTER (STUBBED AND CAPPED FOR FUTURE).

N. ONE 4" SCHEDULE 40 CONDUIT FOR TELEPHONE SERVICE. PROVIDE 25 PAIR CABLE SERVICE.

O. ONE 3" SCHEDULE 40 CONDUIT FOR CABLE SERVICE WITH PULL ROPE FROM ELECTRIC DROP TO STORE (STUBBED AND CAPPED FOR FUTURE).

P. MAINTAIN 18" OF VERTICAL CLEARANCE (OUTSIDE OF PIPE TO OUTSIDE OF PIPE) BETWEEN WATERLINE AND UTILITY. WATERLINE TO BE DEFLECTED AS NECESSARY.

Q. MAINTAIN 18" OF VERTICAL CLEARANCE (OUTSIDE OF PIPE TO OUTSIDE OF PIPE) BETWEEN UTILITIES.

R. ONE 4" SCHEDULE 40 CONDUIT FOR ELECTRIC SERVICE TO SITE FROM BUILDING.

S. TWO 4" SCHEDULE 40 CONDUITS FOR SERVICE FROM BUILDING TO ORDER KIOSK.

T. PROPOSED POWER POLE LOCATION. EXISTING OVERHEAD UTILITIES TO BE RELOCATED TO PROPOSED POLE. COORDINATE WITH ALL UTILITIES COMPANIES PRIOR TO CONSTRUCTION.

SCALE: 1" = 20'
0 20 40 60
GRAPHIC SCALE

NOTE:
6" SANITARY SERVICE SHALL BE PVC C900 SDR 35.

NOTE:
2" DOMESTIC WATER SERVICE SHALL BE TYPE "K" COPPER.

NOTE:
ALL SANITARY SEWER SERVICES SHALL BE RUN AT A MINIMUM SLOPE OF 2.08%.

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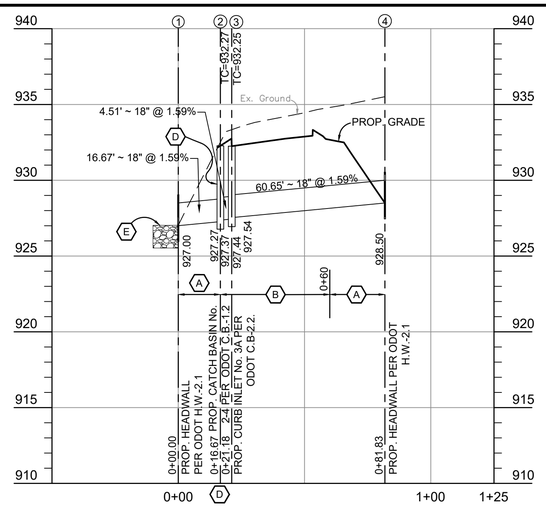
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DELAWARE, OH 43015

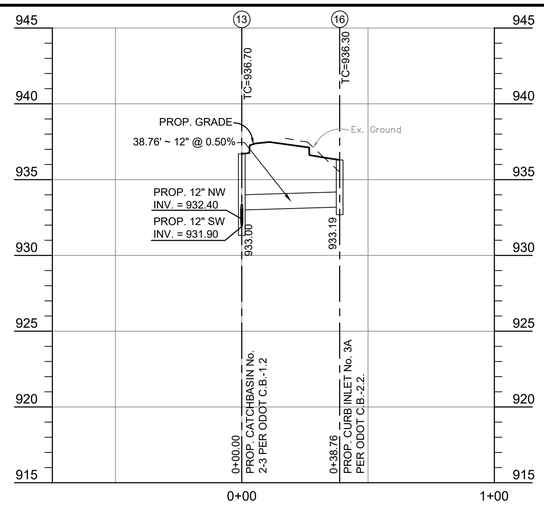
UTILITY PLAN

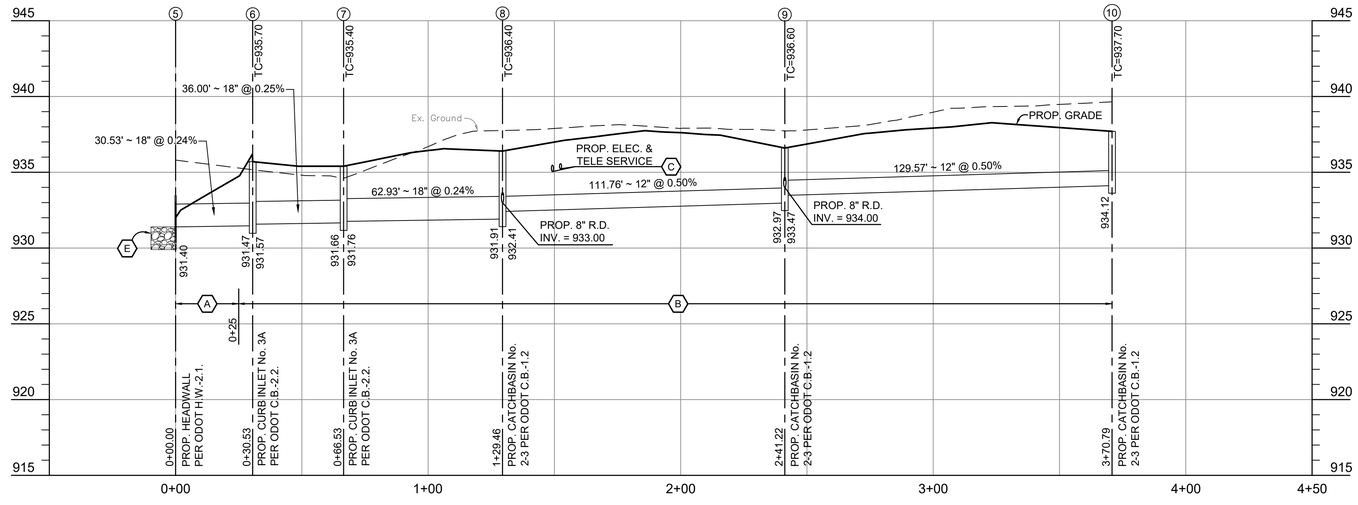
SCALE: 1" = 20'			JOB NO. 19-165	15
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

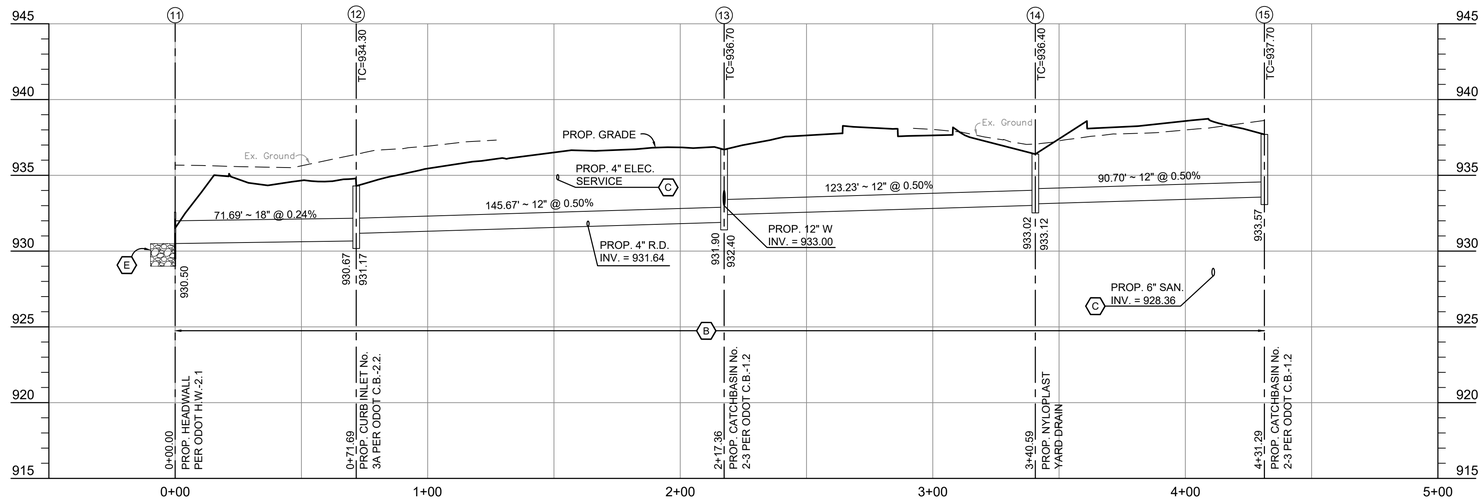
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ORIG. SHT. SZ. 22"x 34"









CODED NOTES

- (A) COMPACTED BACKFILL PER CITY OF COLUMBUS ITEM 911.
- (B) COMPACTED GRANULAR MATERIAL PER CITY OF COLUMBUS ITEM 912.
- (C) MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE (FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE) BETWEEN PROPOSED STORM SEWER AND SPECIFIED UTILITY.
- (D) PROPOSED OUTLET CONTROL STRUCTURE PER DETAIL ON SHEET 12.
- (E) TYPE "C" ROCK CHANNEL PROTECTION WITH FILTER FABRIC, 10'x6'x1.5'.

SCALE: 1" = 5'
0 5 10 15
GRAPHIC SCALE
VERT.

SCALE: 1" = 30'
0 30 60 90
GRAPHIC SCALE
HORIZ.

Bird+Bull Engineers & Surveyors
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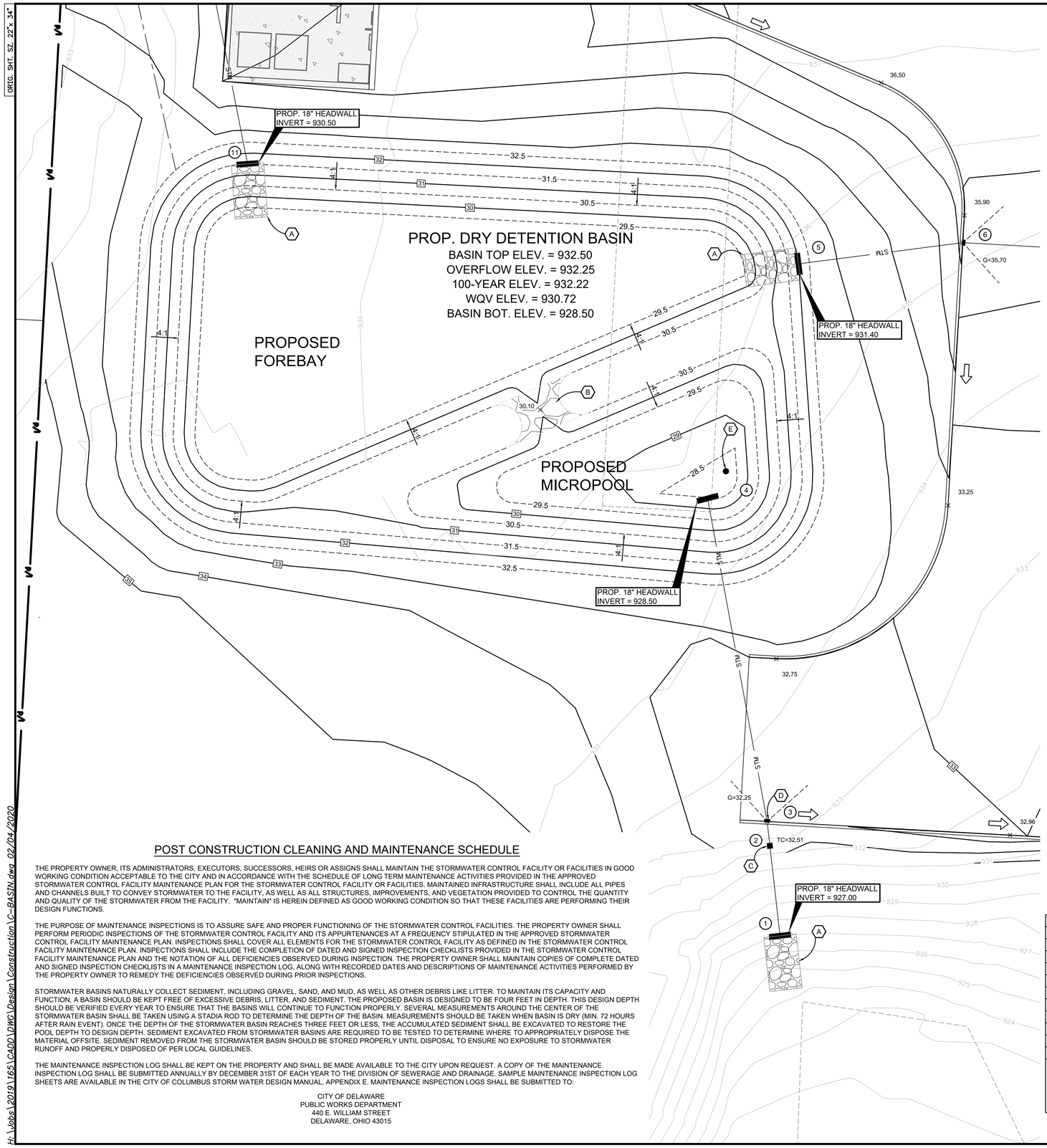
SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

STORM SEWER PROFILES

SCALE: 1" = 30' HORIZ., 1" = 5' VERT.			JOB NO.	16
DWN:RJB	CKD:AAG	DATE: 02/04/2020	19-165	

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ORIG. SHT. SZ. 22"x 34"



STORM AND GRADING LEGEND

SCALE: 1" = 10'

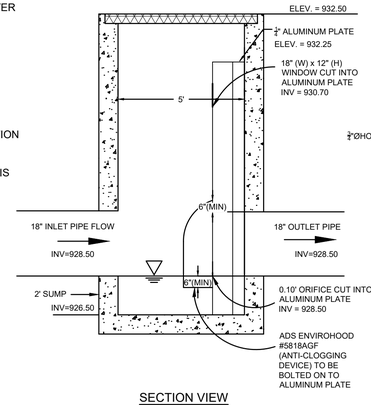
0 10 20 30

GRAPHIC SCALE

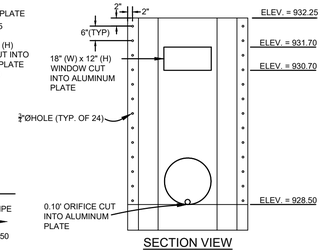
949 — EXISTING CONTOUR	EXISTING SANITARY MANHOLE
50 — PROPOSED CONTOUR	PROPOSED SANITARY MANHOLE
×949.50 EXISTING SPOT ELEVATION	EXISTING FIRE HYDRANT
×50.05 PROPOSED SPOT ELEVATION	PROPOSED FIRE HYDRANT
EXISTING STORM MANHOLE	EXISTING VALVE
PROPOSED STORM MANHOLE	PROPOSED VALVE
EXISTING CATCH BASIN	INDICATES DIRECTION OF MAJOR FLOOD ROUTING GREATER THAN 100 ~ YEAR STORM
PROPOSED CATCH BASIN	
(1) STORM STRUCTURE NUMBER	

CODED NOTES

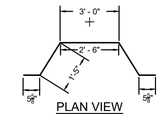
- (A) TYPE "C" ROCK CHANNEL PROTECTION WITH FILTER FABRIC, 10' x 6' x 1.5'.
- (B) TYPE "C" ROCK CHANNEL PROTECTION ACROSS OVERFLOW AREA.
- (C) PROPOSED OUTLET CONTROL STRUCTURE PER DETAIL ON THIS SHEET.
- (D) PROPOSED CURB INLET STRUCTURE TO ACT AS BASIN OVERFLOW RELEASE. OVERFLOW ELEVATION OF 932.25 (100-YEAR ELEVATION 932.22.).
- (E) SEDIMENT MONITORING POST PER DETAIL ON THIS SHEET.



SECTION VIEW



SECTION VIEW

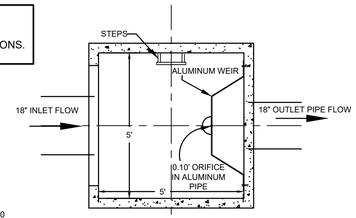


PLAN VIEW



PLAN VIEW

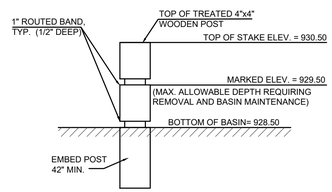
NOTE:
ALL ELEVATIONS ARE PAVEMENT GRADES UNLESS OTHERWISE NOTED. ADD 0.5' FOR TOP OF CURB ELEVATIONS.



PLAN VIEW

STRUCTURE # 2
PROPOSED OUTLET STRUCTURE
NO SCALE

NOTE :
ALUMINUM WEIR HAS BEEN SIZED WITH AN OPEN TOP TO ALLOW OVERFLOW ABOVE THE ORIFICE AT ELEVATION 932.25.



SEDIMENT MONITOR POST
NO SCALE

SEE PLAN VIEW FOR LOCATION/PLACEMENT.

POST CONSTRUCTION CLEANING AND MAINTENANCE SCHEDULE

THE PROPERTY OWNER, ITS ADMINISTRATORS, EXECUTORS, SUCCESSORS, HEIRS OR ASSIGNS SHALL MAINTAIN THE STORMWATER CONTROL FACILITY OR FACILITIES IN GOOD WORKING CONDITION ACCEPTABLE TO THE CITY AND IN ACCORDANCE WITH THE SCHEDULE OF LONG TERM MAINTENANCE ACTIVITIES PROVIDED IN THE APPROVED STORMWATER CONTROL FACILITY MAINTENANCE PLAN FOR THE STORMWATER CONTROL FACILITY OR FACILITIES. MAINTAINED INFRASTRUCTURE SHALL INCLUDE ALL PIPES AND CHANNELS BUILT TO CONVEY STORMWATER TO THE FACILITY, AS WELL AS ALL STRUCTURES, IMPROVEMENTS, AND VEGETATION PROVIDED TO CONTROL THE QUANTITY AND QUALITY OF THE STORMWATER FROM THE FACILITY. "MAINTAIN" IS HEREIN DEFINED AS GOOD WORKING CONDITION SO THAT THESE FACILITIES ARE PERFORMING THEIR DESIGN FUNCTIONS.

THE PURPOSE OF MAINTENANCE INSPECTIONS IS TO ASSURE SAFE AND PROPER FUNCTIONING OF THE STORMWATER CONTROL FACILITIES. THE PROPERTY OWNER SHALL PERFORM PERIODIC INSPECTIONS OF THE STORMWATER CONTROL FACILITY AND ITS APPURTENANCES AT A FREQUENCY STIPULATED IN THE APPROVED STORMWATER CONTROL FACILITY MAINTENANCE PLAN. INSPECTIONS SHALL COVER ALL ELEMENTS FOR THE STORMWATER CONTROL FACILITY AS DEFINED IN THE STORMWATER CONTROL FACILITY MAINTENANCE PLAN. INSPECTIONS SHALL INCLUDE THE COMPLETION OF DATED AND SIGNED INSPECTION CHECKLISTS PROVIDED IN THE STORMWATER CONTROL FACILITY MAINTENANCE PLAN AND THE NOTATION OF ALL DEFICIENCIES OBSERVED DURING INSPECTION. THE PROPERTY OWNER SHALL MAINTAIN COPIES OF COMPLETE DATED AND SIGNED INSPECTION CHECKLISTS IN A MAINTENANCE INSPECTION LOG, ALONG WITH RECORDED DATES AND DESCRIPTIONS OF MAINTENANCE ACTIVITIES PERFORMED BY THE PROPERTY OWNER TO REMEDY THE DEFICIENCIES OBSERVED DURING PRIOR INSPECTIONS.

STORMWATER BASINS NATURALLY COLLECT SEDIMENT, INCLUDING GRAVEL, SAND, AND MUD, AS WELL AS OTHER DEBRIS LIKE LITTER. TO MAINTAIN ITS CAPACITY AND FUNCTION, A BASIN SHOULD BE KEPT FREE OF EXCESSIVE DEBRIS, LITTER, AND SEDIMENT. THE PROPOSED BASIN IS DESIGNED TO BE FOUR FEET IN DEPTH. THIS DESIGN DEPTH SHOULD BE VERIFIED EVERY YEAR TO ENSURE THAT THE BASINS WILL CONTINUE TO FUNCTION PROPERLY. SEVERAL MEASUREMENTS AROUND THE CENTER OF THE STORMWATER BASIN SHALL BE TAKEN USING A STADIA ROD TO DETERMINE THE DEPTH OF THE BASIN. MEASUREMENTS SHOULD BE TAKEN WHEN BASIN IS DRY (MIN. 72 HOURS AFTER RAIN EVENT). ONCE THE DEPTH OF THE STORMWATER BASIN REACHES THREE FEET OR LESS, THE ACCUMULATED SEDIMENT SHALL BE EXCAVATED TO RESTORE THE POOL DEPTH TO DESIGN DEPTH. SEDIMENT EXCAVATED FROM STORMWATER BASINS ARE REQUIRED TO BE TESTED TO DETERMINE WHERE TO APPROPRIATELY DISPOSE THE MATERIAL OFFSITE. SEDIMENT REMOVED FROM THE STORMWATER BASIN SHOULD BE STORED PROPERLY UNTIL DISPOSAL TO ENSURE NO EXPOSURE TO STORMWATER RUNOFF AND PROPERLY DISPOSED OF PER LOCAL GUIDELINES.

THE MAINTENANCE INSPECTION LOG SHALL BE KEPT ON THE PROPERTY AND SHALL BE MADE AVAILABLE TO THE CITY UPON REQUEST. A COPY OF THE MAINTENANCE INSPECTION LOG SHALL BE SUBMITTED ANNUALLY BY DECEMBER 31ST OF EACH YEAR TO THE DIVISION OF SEWERAGE AND DRAINAGE. SAMPLE MAINTENANCE INSPECTION LOG SHEETS ARE AVAILABLE IN THE CITY OF COLUMBUS STORM WATER DESIGN MANUAL, APPENDIX E. MAINTENANCE INSPECTION LOGS SHALL BE SUBMITTED TO:

CITY OF DELAWARE
PUBLIC WORKS DEPARTMENT
440 E. WILLIAM STREET
DELAWARE, OHIO 43015

DRY DETENTION BASINS

ITEM	INSPECTION FREQUENCY
VEGETATION ADEQUATE	MONTHLY
UNDESIRABLE VEGETATIVE GROWTH	MONTHLY
UNDESIREABLE WOODY VEGETATION	MONTHLY
LOWFLOW CHANNELS CLEAR OF OBSTRUCTIONS	MONTHLY
STANDING WATER OR WET SPOTS	MONTHLY, AFTER MAJOR STORMS
SEDIMENT AND/OR TRASH ACCUMULATION	MONTHLY
SLOPE EROSION	ANNUAL, AFTER MAJOR STORMS
STORM DRAIN PIPES	ANNUAL, AFTER MAJOR STORMS
ENDWALLS/HEADWALLS	ANNUAL, AFTER MAJOR STORMS
GRASS HEIGHT	MONTHLY
ORIFICE PLATE	ANNUAL
MONITOR SEDIMENT ACCUMULATION AND REMOVE SEDIMENT WHEN POOL VOLUME HAS BECOME REDUCED SIGNIFICANTLY (10% OF POOL VOLUME LOST, ELEVATION 929.50).	ANNUAL

DRY DETENTION BASINS (STRUCTURE 2)

EXAMINE BANKS AND ROCK CHANNEL PROTECTION AREAS FOR SEEPAGE AND STRUCTURAL SOUNDNESS ANNUALLY AND AFTER MAJOR STORMS. REPAIRS SHALL BE MAKE AS NECESSARY.

CHECK THE ROCK CHANNEL PROTECTION AREAS AND OUTLET STRUCTURE FOR EROSION ANNUALLY AND AFTER ALL MAJOR STORMS. AREAS SHALL BE STABILIZED AS NECESSARY.

ALL PORTIONS OF OUTLET STRUCTURE #2, INCLUDING BUT NOT LIMITED TO THE ORIFICE PLATE AND STRUCTURE GRATE, SHALL BE INSPECTED FOR EVIDENCE OF CLOGGING OR RELEASE VELOCITIES THAT APPEAR TO BE CAUSING EROSION ANNUALLY. ENSURE THE OUTLET PIPE IS FREE FROM CLOGS AND ORIFICE HOLES ARE OPERATING AS DESIGNED. IF NECESSARY, REMOVE DEBRIS FROM THE UPSTREAM SIDE.

ACCUMULATED TRASH AND DEBRIS SHOULD BE REMOVED FORM THE STRUCTURE SUMP AND GRATE AS NECESSARY.

SEDIMENT SHOULD BE REMOVED WHEN ACCUMULATION REACHES THE MARKED ELEVATION ON EITHER MONITORING POST (ELEV. 929.50). SEDIMENT MONITORING POSTS SHALL BE INSTALLED PER THE PLAN VIEW ON SHEET 10. REMOVAL FREQUENCY TYPICALLY VARIES FROM 5 TO 25 YEARS OR MORE. DISPOSE OF COLLECTED SEDIMENT AND POLLUTANTS IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. RESTORE BASIN TO DESIGN GRADES PER THIS PLAN.

Bird+Bull Engineers & Surveyors
3500 Snouffer Road, Suite 225
Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
WWW.BIRDBULL.COM

SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

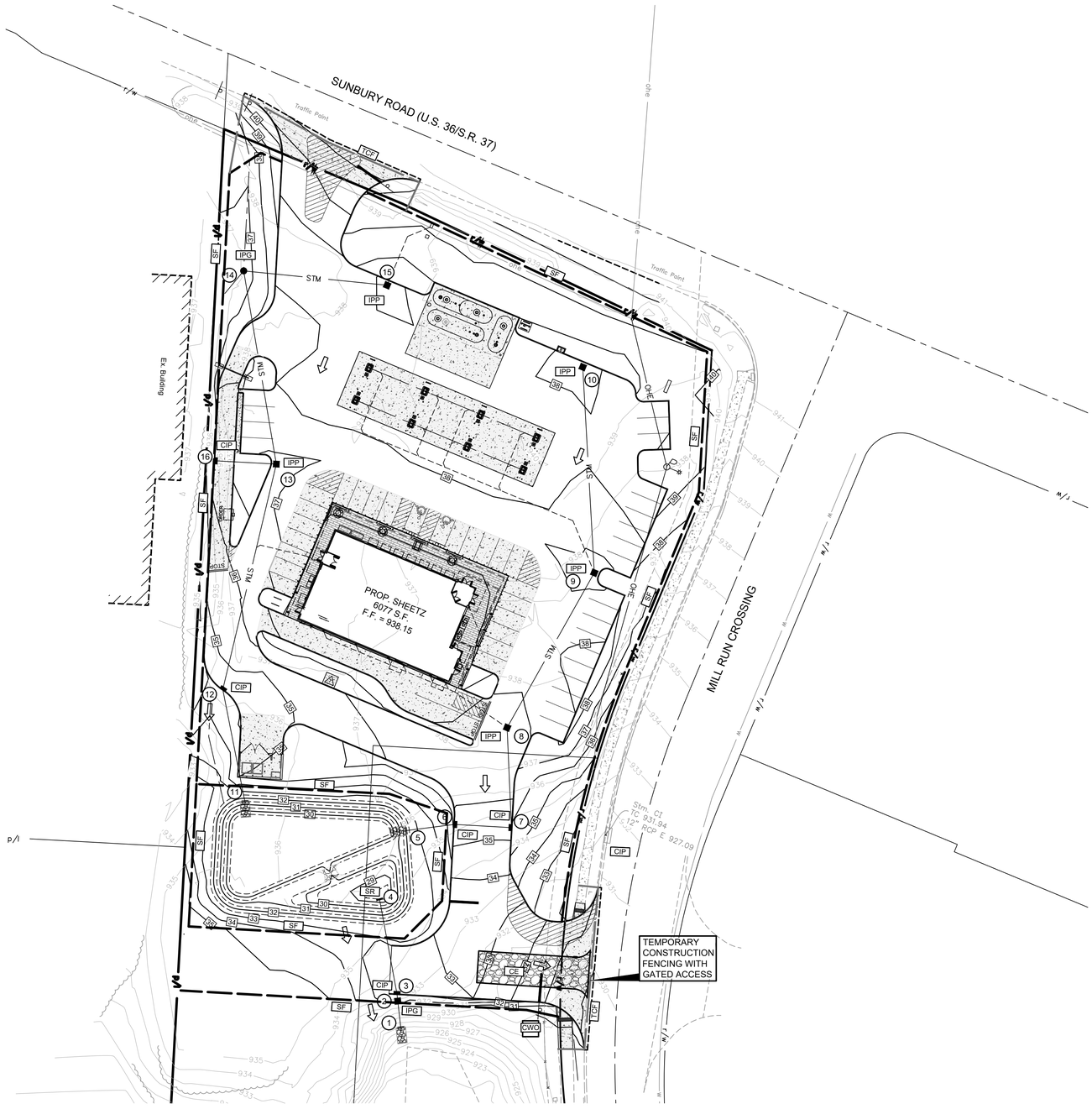
DETENTION BASIN DETAILS

SCALE: 1" = 10'			JOB NO. 19-165	17
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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ORIG. SHT. SZ. 22"x 34"

THIS PLAN MUST BE POSTED ON-SITE
IN THE PROJECT TRAILER.
A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN
SHALL BE KEPT ONSITE AT ALL TIMES.



LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- TS — TEMPORARY SEEDING AND MULCHING
- PS — PERMANENT SEEDING AND MULCHING
- IPP — INLET PROTECTION - PAVEMENT
- IPG — INLET PROTECTION - GRASS
- CIP — CURB INLET PROTECTION
- SR — SEDIMENT RISER
- TCF — TEMPORARY CONSTRUCTION FENCING
- SF — SEDIMENT FENCING
- TREE FENCE
- INDICATES DIRECTION OF MAJOR FLOOD ROUTING
- CWO — CONCRETE WASHOUT
- CE — STABILIZED CONSTRUCTION ENTRANCE

SCALE: 1" = 40'
0 40 80 120
GRAPHIC SCALE

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Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
WWW.BIRDBULL.COM

SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 40'			JOB NO. 19-165	18
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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ORIG. SHT. SZ. 22"x 34"

GENERAL EROSION NOTES

A. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS EROSION CONTROL PLAN. THE STANDARD DETAILS, THE PLAN NARRATIVE, THE O.D.O.T. MATERIALS & CONSTRUCTION STANDARDS (IF APPLICABLE) PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.

B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF OHIO'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (N.P.D.E.S. PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.

C. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE S.W.P.P. PLAN. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

E . PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

F. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.

G. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEARING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.

H. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED, PROPERLY TREATED AND/OR DISPOSED. IF CONCRETE CHUTES ARE TO BE WASHED, A PLACE MUST BE PROVIDED FOR THE WASH RUNOFF IN A PLACE AWAY FROM THE STORM SEWER. NO RUNOFF FROM THE WASHING OF CONCRETE CHUTES SHALL BE ALLOWED TO DRAIN TO STORM SEWER SYSTEM. THIS AREA TO BE DELINEATED ON RECORD DRAWING ON FILE IN JOB TRAILER.

I. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.

J. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.

L. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.

M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.

N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

O. TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.

P. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

Q. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.

R. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.

S. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.

T. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, INLET FILTER, CHECK DAMS, ETC.) TO PREVENT EROSION.

U. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

V. INSPECTION CHECKLIST SHALL BE COMPLETED AND SIGNED BY INSPECTOR AFTER EVERY INSPECTION.

W. INSPECTION RECORDS SHALL BE KEPT FOR 3 YEARS AFTER CONSTRUCTION.

X. SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED FOR 14 DAYS OR MORE.

MAINTENANCE
ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION WITHIN 48 HOURS OF INSPECTION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE WITHIN 48 HOURS OF INSPECTION.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE SEDIMENT STORAGE CAPACITY HAS BEEN REDUCED BY 40%.

SEQUENCE OF MAJOR ACTIVITIES

1 ON-SITE PRECONSTRUCTION MEETING WITH KROGER PROJECT MANAGER TO DISCUSS SEDIMENT AND EROSION CONTROLS.

2. INSTALL TEMPORARY CONSTRUCTION ENTRANCE PER THE SITE DRAWINGS BEFORE ANY CONSTRUCTION BEGINS OR SUPPLIES ARE DELIVERED.

3. INSTALL ALL EROSION AND SEDIMENT CONTROLS INCLUDING SEDIMENT BASINS, SILT FENCE, AND INLET PROTECTION.

4. POST ALL APPLICABLE SIGNS, INCLUDING THE NOTICE OF INTENT (NOI), AND HAVE THIS SWPPP WITH EROSION AND SEDIMENT CONTROL PLANS AT THE SITE FOR CONTINUAL USE AND MODIFICATION. (SEE ATTACHED "CONSTRUCTION SITE NOTICE" (FOR POSTING AT THE CONSTRUCTION ENTRANCE).

5. PHASING OF WORK TO ALLOW EXISTING VEGETATIVE AREAS OR BUFFERS TO REMAIN AS LONG AS POSSIBLE IS ENCOURAGED.

6. EROSION CONTROLS MUST BE INSPECTED PER THE ATTACHED INSPECTION CHECKLIST (ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF 0.25 INCHES OR GREATER RAINFALL) [OR PER MORE STRINGENT LOCAL REQUIREMENTS].

7. INSTALL ANY SEDIMENT TRAPS AND/OR BASINS PER THE SITE DRAWINGS, AS SOON AS POSSIBLE, DURING THE CLEARING AND EXCAVATION OF THE SITE. PROVIDE TEMPORARY GRADING TO DIRECT WATER TO TRAPS/BASINS.

8. REMOVE ACCUMULATED SEDIMENT FROM EROSION CONTROLS AS NECESSARY

9. CONTINUE INSTALLING/MODIFYING EROSION CONTROLS AS THE CONSTRUCTION OF SITE UTILITIES FOUNDATIONS, AND STRUCTURES CHANGE THE TOPOGRAPHY OF THE SITE.

10. ESTABLISH TEMPORARY STABILIZATION/SEEDING ON ALL AREAS THAT ARE TO REMAIN UNDISTURBED PER THE ATTACHED WEEKLY INSPECTION CHECKLIST.

11. THE GENERAL CONTRACTOR WILL KEEP WRITTEN DOCUMENTATION OF MAJOR EARTH MOVING ACTIVITIES USING THE ATTACHED SITE LOG INDICATING START AND STOP DATES FOR DEFINED AREAS OF THE SITE. NOTE THESE AREAS ON THE SITE DRAWINGS WHEN POSSIBLE.

12. PERFORM AS-BUILT SURVEY AND VERIFICATION LETTER FROM ENGINEER OF RECORD.

13. PROVIDE FINAL STABILIZATION AS SOON AS AREAS ARE MADE AVAILABLE. FINAL STABILIZATION, [70] PERCENT COVERAGE OF TURF GRASS, IS SPECIFIED IN THE TEXT OF THE APPLICABLE PERMIT.

14. SCHEDULE POST CONSTRUCTION SOD INSPECTION ONCE SITE ACHIEVES 70% OVERALL GRASS DENSITY.

15. REMOVE TEMPORARY OR SEDIMENT CONTROL PRACTICES ONCE FINAL STABILIZATION/VEGETATION HAS BEEN ESTABLISHED.

16. KEEP ALL SWPPP DOCUMENTS, INCLUDING INSPECTION CHECKLISTS, ON FILE FOR [THREE] YEARS FROM TERMINATION.

SWPPP SITE DESCRIPTION

THE EXISTING SITE CURRENTLY CONSISTS OF THE DELAWARE MARINE BOAT SALES PROPERTY. THE PROPERTY EXHIBITS THREE SEPARATE BUILDINGS WITH A SIGNIFICANT AMOUNT OF BOTH GRAVEL AND ASPHALT PAVEMENT FOR ADDITIONAL STORAGE YARD SPACE. AT THIS TIME THERE IS NO STORM SEWER INFRASTRUCTURE LOCATED DIRECTLY ON SITE AND STORMWATER ONSITE GENERALLY SHEET FLOWS SOUTH. THERE IS NO KNOWN DETENTION OR WATER QUALITY PROVIDED ONSITE.

FOLLOWING CONSTRUCTION, THE SITE WILL EXHIBIT A 6,077± S.F. SHEETZ QUICK SERVICE RESTAURANT WITH FUEL CENTER AND DRIVE-THRU. THE PRIMARY BUILDING WILL BE SURROUNDED BY PARKING AND DRIVE AISLES WITH THE FUEL CENTER LOCATED PARALLEL TO U.S. 36 & 37. A PRIVATE STORM SEWER SYSTEM IS PROPOSED TO DRAIN THE SITE TO A PROPOSED EXTENDED DRY DETENTION BASIN.

THE PROPOSED BASIN WILL OUTLET ONSITE LEADING TO AN EXISTING STREAM LOCATED ALONG THE SOUTH PROPERTY LINE. THE EXISTING STREAM ULTIMATELY DRAINS TO THE OLENTANGY RIVER.

A. TOTAL SITE AREA = 3.88 AC.
TOTAL AREA (EXPECTED TO BE DISTURBED) = 3.06 AC.

RUNOFF COEFFICIENTS
PRE DEVELOPMENT = 0.72
POST DEVELOPMENT = 0.72

PRE DEVELOPED IMPERVIOUS AREA = 2.17 AC.
POST DEVELOPED IMPERVIOUS AREA = 1.97 AC.

B. EROSION CONTROL SEQUENCING

STAGE I - INSTALL PERIMETER SILT FENCE, INLET PROTECTION AND STABILIZED CONSTRUCTION ENTRANCE.

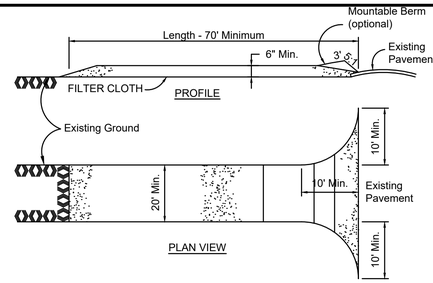
STAGE II - CONSTRUCTION DETENTION POND AND/OR TEMPORARY SEDIMENT CONTROL FACILITIES PRIOR TO SITE MASS GRADING.

TEMPORARY SEDIMENT BASIN

DETENTION BASIN
DISTURBED AREA: 3.06 ACRES
TRIBUTARY AREA: 2.93 ACRES

DEWATERING ZONE (1,800 C.F. / AC. TRIB.) = 5,274 C.F.
SEDIMENT STORAGE ZONE (1,000 C.F. / AC. DISTURBED) = 3,060 C.F.
= 8,334 C.F.

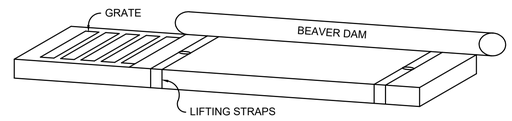
BASIN CAPACITY: 21,438 C.F.
CONTRACTOR TO USE 2.0" FAIRCLOTH SKIMMER, WHICH PROVIDES UP TO 6,566 C.F. DRAWDOWN IN 48 HOURS. FAIRCLOTH SKIMMER WILL HAVE A 1.8" Ø ORIFICE.

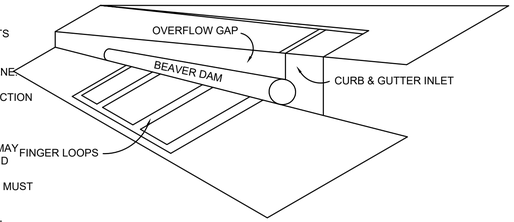


CONSTRUCTION SEQUENCE
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED. (MINIMUM OF 70')
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN ON SITE CONTAINMENT AREA.
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PERFORMED AFTER EACH RAIN.
10. THIS CONSTRUCTION SHALL INCLUDE ALL MATERIALS AND COSTS RELATIVE TO CONSTRUCTING, MAINTAINING, REMOVAL AND RESTORATION OF STABILIZED ENTRANCE WITHIN THE VARIOUS SEWER ITEMS.

CE STABILIZED CONSTRUCTION ENTRANCE
NO SCALE

THIS PLAN MUST BE POSTED ON-SITE IN THE PROJECT TRAILER.
A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN AND THE APPROVED EPA STORMWATER PERMIT SHALL BE KEPT ONSITE AT ALL TIMES.

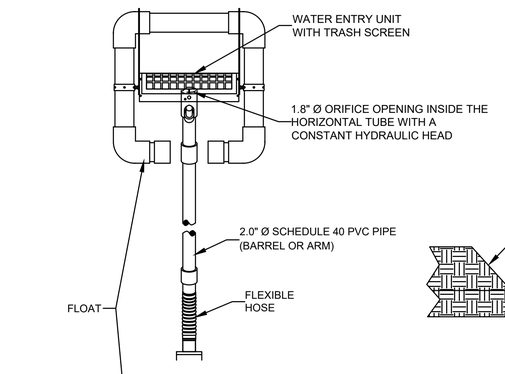


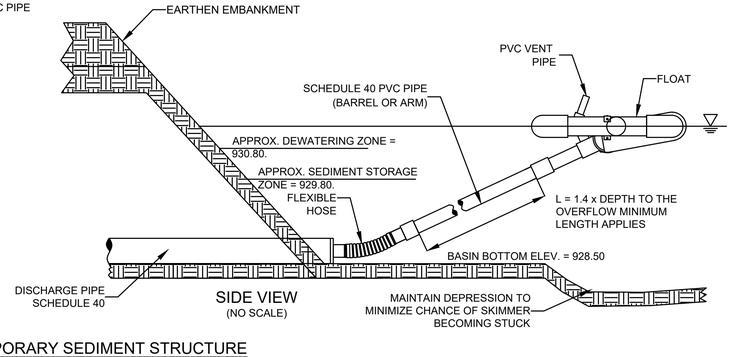


MAINTENANCE:
WITH A STIFF BRISTLE BROOM SWEEP SILT & OTHER DEBRIS OFF SURFACE AFTER EACH EVENT.

INSTALLATION:
STAND GRATE ON END. SLIDE THE BEAVER DAM BAG ON W/DAM ON TOP OF THE GRATE. PULL ALL EXCESS DOWN. LAY UNIT ON ITS SIDE. CAREFULLY TUCK FLAP IN. PRESS VELCRO STRIPS TOGETHER. INSTALL THE UNIT MAKING SURE FRONT EDGE OF GRATE IS INSERTED IN FRAME FIRST THEN LOWER BACK INTO PLACE. PRESS VELCRO DOTS TOGETHER WHICH ARE LOCATED UNDER LIFTING STRAPS. THIS INSURES STRAPS REMAIN FLUSH WITH GUTTER.

CIP CURB INLET PROTECTION
NO SCALE





GENERAL NOTES:
1. PROPER DESIGN MUST BE COMPLETED TO MINIMIZE PIPING AROUND DISCHARGE PIPE.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
4. EMERGENCY SPILLWAY MUST BE CORRECTLY SIZED AND EROSION PROTECTION INSTALLED.
5. EROSION PROTECTION MUST BE INSTALLED ALONG THE EMBANKMENT AND AT THE DISCHARGE END OF THE PIPE.
6. INSPECT SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING IN A CORRECT MANNER.
7. EIGHT SIZES OF SKIMMERS ARE AVAILABLE, REFER TO THE FLOW SHEET, CUT SHEET, AND INSTRUCTIONS ON WEB SITE FOR EACH SIZE.

TEMPORARY SEDIMENT STRUCTURE
FAIRCLOTH SKIMMER DISCHARGE SYSTEM WITH EMBANKMENT (OR APPROVED EQUAL)
NO SCALE

Bird+Bull Engineers & Surveyors
3500 Snouffer Road, Suite 225
Columbus, Ohio 43235
Ph: (614) 761-1661
Fax: (614) 761-1328
WWW.BIRDBULL.COM

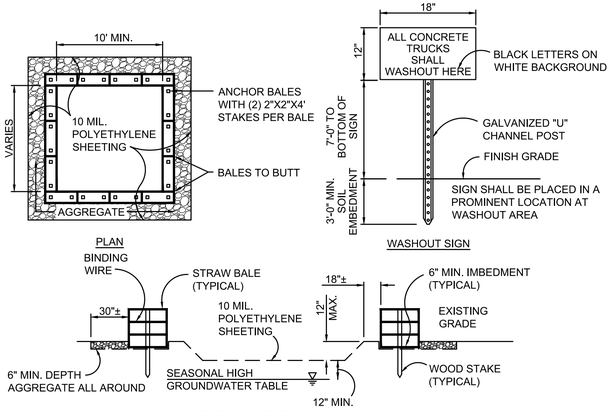
SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

EROSION AND SEDIMENT CONTROL PLAN NOTES

SCALE: N/A			JOB NO. 19-165	19
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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ORIG. SHT. SZ. 22"x 34"



TYPICAL SECTION

NOTES:

1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

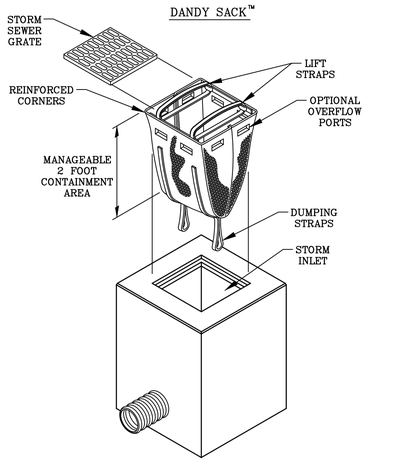
CWO CONCRETE WASHOUT AREA

NO SCALE

IPG INLET PROTECTION - GRASS

NO SCALE

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 IN.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4-IN. CONSTRUCTION-GRADE LUMBER. THE 2-BY-4-IN. POSTS SHALL BE DRIVEN 1 FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4-IN. FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 IN. BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
5. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 IN. BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-IN. LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
7. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF THE EARTH DIKES SHALL BE AT LEAST 6 IN. HIGHER THAN THE TOP OF THE FRAME.



DETAIL OF INLET SEDIMENT CONTROL DEVICE

DANDY SACK™ SPECIFICATIONS

NOTE: THE DANDY SACK™ WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY SACK™ (BLACK)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4833	kN (lbs)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5506 (800)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	2852 (70)
Permittivity	ASTM D 4491	Sec⁻¹	0.90

HI-FLOW DANDY SACK™ (SAFETY ORANGE)

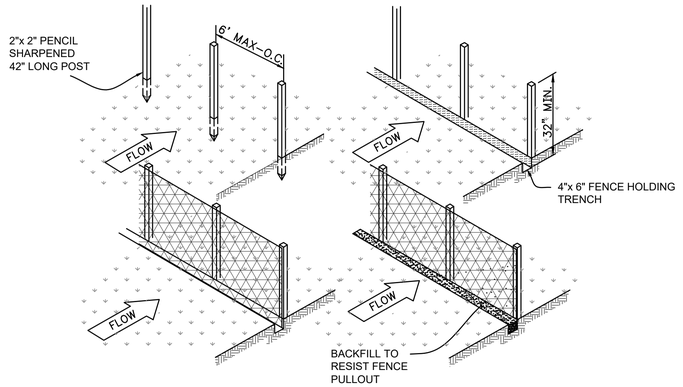
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m² (gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

*Note: All Dandy Sacks™ can be ordered with our optional oil absorbent pillows

IPP INLET PROTECTION - PAVEMENT

NO SCALE

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A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN AND THE APPROVED EPA STORMWATER PERMIT SHALL BE KEPT ONSITE AT ALL TIMES.



SEDIMENT FENCE FABRIC SHALL BE ODOT, TYPE 'C' GEOTEXTILE FABRIC OR THE EQUIVALENT TO FOLLOWING PROPERTIES:

MATERIAL PROPERTIES	
MAXIMUM TENSILE STRENGTH	120 LBS.
MAXIMUM ELONGATION AT 60 LBS.	50%
MINIMUM TEAR STRENGTH	40 LBS.
MINIMUM BURST STRENGTH	200 LBS.
APPARENT OPENING SIZE	0.84 MM
MINIMUM PERMITTIVITY	$^{-1}$X10 ^{2} SEC
ULTRAVIOLET EXPOSURE STRENGTH RETENTION	70%

SILT FENCE:
THIS SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED. MATERIAL PROPERTIES ARE LISTED IN THE PROVIDED TABLE.

1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE).
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM OF A 6 INCH OVERLAP, AND SECURELY SEALED.
3. POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WOOD POSTS WILL BE MINIMUM OF 32 INCHES LONG WITH EXTRA STRENGTH FABRIC IS USED WITH WIRE SUPPORT FENCE.
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
5. THE STANDARD STRENGTH FILTER SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.
7. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
8. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THE THE ENDS ARE HIGHER ELEVATION.

MAINTENANCE:
SLIT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

SF SEDIMENT FENCE

NO SCALE

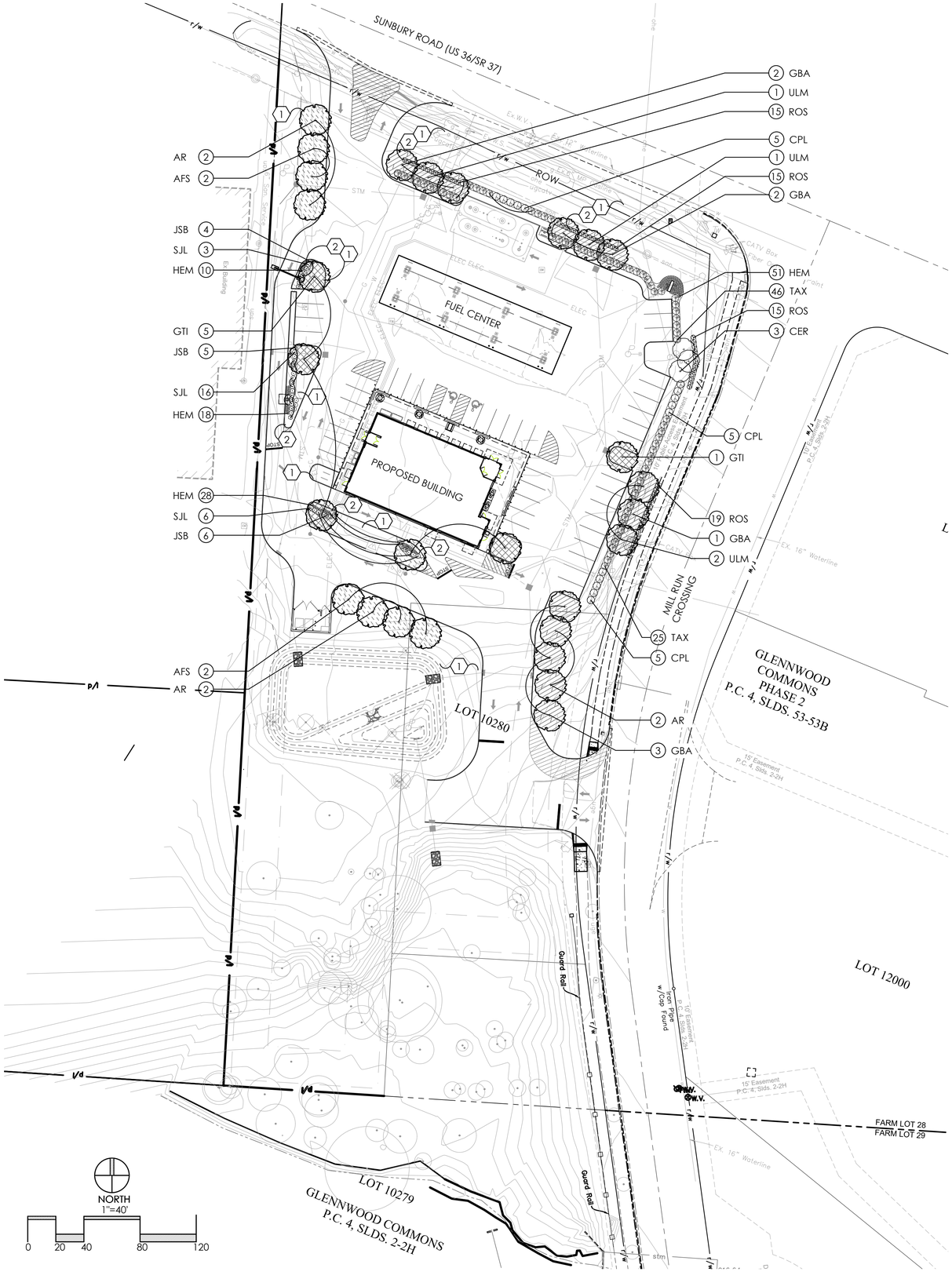
Bird+Bull Engineers & Surveyors
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SHEETZ
700 - 710 SUNBURY ROAD
DELAWARE, OH 43015

EROSION AND SEDIMENT CONTROL PLAN DETAILS

SCALE: N/A			JOB NO. 19-165	20
DWN:RJB	CKD:AAG	DATE: 02/04/2020		

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LANDSCAPE REQUIREMENTS

1166.06 STREET TREES REQUIREMENTS	REQUIRED	PROVIDED
MILL RUN CROSSING AND US 36/SR 37 FRONT YARD TREE	ONE SHADE TREE SHALL BE PROVIDED FOR EVERY FIFTY (50) LINEAR FEET OF LOT FRONTAGE OR FRACTION THEREOF, NOT INCLUDING DRIVE ENTRANCES.EACH TREE AT THE TIME OF INSTALLATION SHALL HAVE A MINIMUM CALIPER OF 3.0 INCHES AND A CLEAR TRUNK HEIGHT OF AT LEAST SIX (6) FEET. ONE SHRUB SHALL BE PROVIDED FOR EVERY TEN (10) LINEAR FEET OF LOT FRONTAGE OR FRACTION THEREOF, NOT INCLUDING DRIVE ENTRANCES.	MILL RUN CROSSING: 8 SHADE TREES AND 38 SHRUBS PROVIDED FOR ±374 L.F. OF FRONTAGE US 36/ SR 37: 6 SHADE TREES AND 28 SHRUBS PROVIDED FOR ±277 L.F. OF FRONTAGE
1166.09 SCREENING AND LANDSCAPING OF PARKING LOTS	**REQUIRED**	**PROVIDED**
PARKING LOT TREE	FOR ANY PARKING AREA DESIGNED TO ACCOMMODATE FORTY (40) OR MORE VEHICLES, A MINIMUM OF 5 PERCENT (5%) OF THE PARKING LOT SHALL BE PLANTED AS LANDSCAPED ISLAND AREAS. WITHIN THE LANDSCAPED ISLANDS, ONE (1) SHADE TREE SHALL BE PROVIDED FOR EVERY TEN (10) PARKING SPACES. EACH TREE, AT THE TIME OF INSTALLATION, SHALL HAVE A MINIMUM CALIPER OF 3.0 INCHES AND A CLEAR TRUNK HEIGHT OF AT LEAST SIX (6) FEET.	± 3206 S.F. (5.78 %) OF LANDSCAPE ISLANDS PROVIDED FOR ±55,435 S.F. OF VEHICULAR AREA/PARKING AREA TO ACCOMMODATE 47 VEHICLES. 5 TREES OF MIN. 3" CAL. PROVIDED FOR 47 PARKING SPACES
1168.04 PRESERVATION & REPLACEMENT OF MAJOR TREES	**REQUIRED**	**PROVIDED**
REPLACEMENT TREES	EACH MAJOR TREE REMOVED DURING THE COURSE OF THE DEVELOPMENT OF A LOT SHALL BE REPLACED BY THE OWNER OF THE LOT WITH TREES THAT HAVE A TOTAL CALIPER EQUAL TO, OR GREATER THAN, THE TOTAL CALIPER OF THE REMOVED MAJOR TREE. IN NO CASE SHALL ANY REPLACEMENT TREE HAVE A DIAMETER AT BREAST HEIGHT THAT IS LESS THAN 1.75 INCHES.	9 TREES WITH MIN. 2" CAL. REPLACED FOR 18" OF REMOVED TREES.

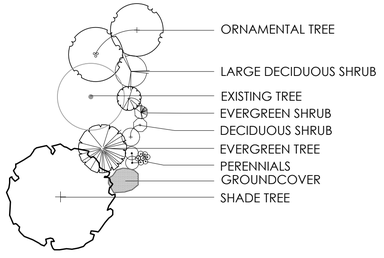
PLANT LIST

(CONTRACTOR RESPONSIBLE FOR ALL PLANTS SHOWN ON PLAN)

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARKS
TREES						
6	AR	ACER RUBRUM	RED MAPLE	3.0" CAL.	B&B	
4	AFS	ACER X FREEMANII 'SIENNA GLEN'	SIENNA GLEN MAPLE	3.0" CAL.	B&B	
6	GTI	GLEDITSIA TRIACANTHOS F. INERMIS 'SKYCOLE' SKYLINE	SKYLINE HONEYLOCUST	3.0" CAL.	B&B	
4	ULM	ULMUS 'ACCOLADE'	MORTON ELM	3.0" CAL.	B&B	
8	GBA	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD GINKGO	3.0" CAL.	B&B	
3	CER	CERCIS CANADENSIS	EASTERN REDBUD	2.0" CAL.	B&B	
SHRUBS						
71	TAX	TAXUS X MEDIA 'DENSIFORMIS'	DENSE YEW	36" HT.	B&B	
15	CPL	CHAMAECYPARIS PISIFERA 'LEMON THREAD'	LEMON THREAD FALSE CYPRESS	36" HT.	B&B	
15	JSB	JUNIPERUS SQUAMATA 'BLUE STAR'	BLUE STAR JUNIPER	18" SPRD.	B&B	
64	ROS	ROSA X 'RADTKO'	DOUBLE KNOCK OUT ROSE	18" SPRD.	B&B	
25	SJL	SPIRAEA JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS SPIREA	18" HT.	B&B	
PERENNIALS/ORNAMENTAL GRASSES						
107	HEM	HEMEROCALLIS X 'STELLA DE ORO'	STELLA DE ORO DWARF DAYLILY	1 GAL	CONT	

PLANT KEY TYPICALS

SEE PLANT LIST FOR SPECIFIC PLANT SPECIES



GENERAL PLANTING NOTES:

1. ALL PLANTS SHALL MEET OR EXCEED STANDARDS SET IN THE USA STANDARD FOR NURSERY STOCK.
2. ALL PLANTING OPERATIONS SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
3. PLANT LOCATIONS AND BEDS SHALL BE LOCATED BY CONTRACTOR AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
4. PLANTING BEDS SHALL HAVE A MINIMUM 3" DEEP SHREDDED HARDWOOD BARK MULCH. MULCH HEDGES IN A CONTINUOUS BED.
5. ALL PLANTING BEDS TO BE TILLED TO A MINIMUM DEPTH OF 12".
6. ALL PLANTING BEDS TO BE FERTILIZED WITH 10-10-10 OR APPROVED EQUAL.
7. SODDING / SEEDING BY LANDSCAPE CONTRACTOR.
8. THE LOCATION OF THE EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
9. ALL AREAS DISTURBED BY CONSTRUCTION ARE TO BE RESTORED, FINE GRADED AND SEEDED/ SODDED.
10. ALL EXISTING PLANT MATERIAL SHOWN ON THIS PLAN IS TO BE PRESERVED UNLESS SPECIFICALLY NOTED OTHERWISE.

CONSTRUCTION NOTES:

1. LAWN AREA, PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES.
2. LANDSCAPE AREA, PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES. PROVIDE MIN. 3" DEPTH MULCH AROUND SHRUBS AT ALL ISLANDS, PARKING LOT SCREENING AND AROUND PYLON SIGNS. MULCH SHALL BE DOUBLE-SHREDDED, COLOR ENHANCED (DYED) HARDWOOD BARK MULCH (BROWN OR BLACK ONLY). USE DEWITT 15 YEAR WEED BARRIER, WOVEN POLYPROPYLENE, OR APPROVED EQUAL, IN ALL PLANT BEDS AND AT TREE RING



REVISIONS	

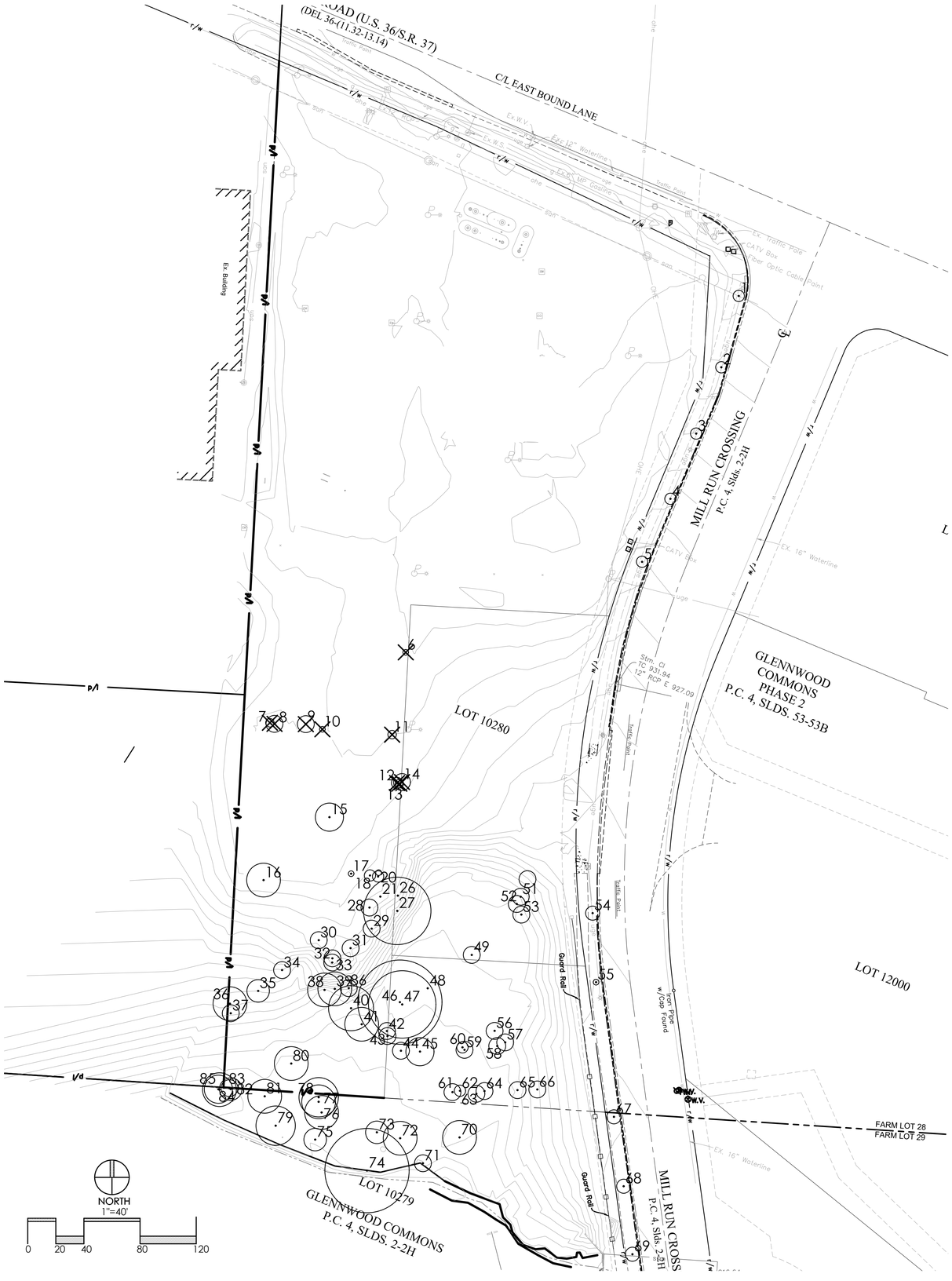
OVERALL LANDSCAPE PLAN

SHEETZ DELAWARE
PREPARED FOR
BIRD & BULL ENGINEER'S & SURVEYORS, INC.
3500 SNOUFFER RD #225, COLUMBUS, OH 43235

Faris Planning & Design
LAND PLANNING · LANDSCAPE ARCHITECTURE
243 N. 5th Street Suite 401 Columbus, OH 43215
p (614) 487-1964 www.farisplanningandesign.com

DATE	2-3-20
PROJECT	19153
SHEET	

L-1



EXISTING TREES					
SHEETZ SUNBURY ROAD- DELAWARE, OHIO					
TREE/POINT NUMBER	SIZE	SPECIES	CONDITION	STATUS	QUANTITY
1	4	TREE	FAIR	PRESERVE	1
2	4	TREE	FAIR	PRESERVE	1
3	4	TREE	FAIR	PRESERVE	1
4	4	TREE	FAIR	PRESERVE	1
5	4	TREE	FAIR	PRESERVE	1
6	2	TREE	FAIR	REMOVE	1
7	3	TREE	FAIR	REMOVE	1
8	6	TREE	FAIR	REMOVE	1
9	6	TREE	FAIR	REMOVE	1
10	2	TREE	FAIR	REMOVE	1
11	3	TREE	FAIR	REMOVE	1
12	4	TREE	FAIR	REMOVE	1
13	3	TREE	FAIR	REMOVE	1
14	6	TREE	FAIR	REMOVE	1
15	10	TREE	FAIR	PRESERVE	1
16	12	TREE	FAIR	PRESERVE	1
17	2	TREE	FAIR	PRESERVE	1
18	4	TREE	FAIR	PRESERVE	1
19	2	TREE	FAIR	PRESERVE	1
20	4	TREE	FAIR	PRESERVE	1
21	24	TREE	FAIR	PRESERVE	1
22	6	TREE	FAIR	PRESERVE	1
23	6	TREE	FAIR	PRESERVE	1
24	14	TREE	FAIR	PRESERVE	1
25	6	TREE	FAIR	PRESERVE	1
26	20	TREE	FAIR	PRESERVE	1
27	24	TREE	FAIR	PRESERVE	1
28	6	TREE	FAIR	PRESERVE	1
29	6	TREE	FAIR	PRESERVE	1
30	6	TREE	FAIR	PRESERVE	1
31	6	TREE	FAIR	PRESERVE	1
32	6	TREE	FAIR	PRESERVE	1
33	6	TREE	FAIR	PRESERVE	1
34	6	TREE	FAIR	PRESERVE	1
35	8	TREE	FAIR	PRESERVE	1
36	12	TREE	FAIR	PRESERVE	1
37	6	TREE	FAIR	PRESERVE	1
38	12	TREE	FAIR	PRESERVE	1
39	12	TREE	FAIR	PRESERVE	1
40	16	TREE	FAIR	PRESERVE	1
41	12	TREE	FAIR	PRESERVE	1
42	6	TREE	FAIR	PRESERVE	1
43	6	TREE	FAIR	PRESERVE	1
44	6	TREE	FAIR	PRESERVE	1
45	10	TREE	FAIR	PRESERVE	1
46	30	TREE	FAIR	PRESERVE	1
47	24	TREE	FAIR	PRESERVE	1
48	6	TREE	FAIR	PRESERVE	1
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53	6	TREE	FAIR	PRESERVE	1
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55	2	TREE	FAIR	PRESERVE	1
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67	5	TREE	FAIR	PRESERVE	1
68	5	TREE	FAIR	PRESERVE	1
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81	12	TREE	FAIR	PRESERVE	1
82	8	TREE	FAIR	PRESERVE	1
83	6	TREE	FAIR	PRESERVE	1
84	12	TREE	FAIR	PRESERVE	1
85	10	TREE	FAIR	PRESERVE	1
86	6	TREE	FAIR	PRESERVE	1

REPLACEMENT CALCULATIONS	TREES REMOVED	REPLACEMENTS REQ'D		
MAJOR TREES				
6"CALIPER OR GREATER (replace 1 for 1 removed)	3	3		
	TREES CREDITED	NUMBER OF CREDITS		
2"< X ≤7"(credit 1 per 1 preserved)	19	19		9
8"< X ≤12"(credit 2 per 1 preserved)	8	16		
13"< X ≤19"(credit 3 per 1 preserved)	1	3		69
20"< X(credit 4 per 1 preserved)	1	4		
TOTAL PRESERVED CREDITS		42		511
TOTAL REPLACEMENTS REQUIRED		3		35

PRESERVATION PLANT KEY

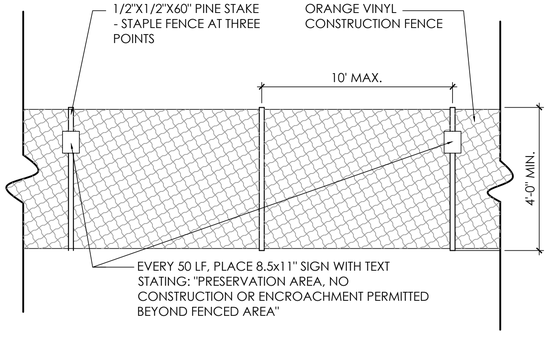
EXISTING TREE

EXISTING TREE TO BE REMOVED

TREE PROTECTION FENCE (SEE DETAIL 1, THIS SHEET)

NOTE: SEE SHEET L-1 FOR SPECIFIC LOCATION, SPECIES, AND CALIPER OF REPLACEMENT TREES AND TREE DATA

STATE OF OHIO
JAMES
928
REGISTERED
LANDSCAPE ARCHITECT



1 TREE PROTECTION FENCE
N.T.S.

05-2809

REVISIONS	

TREE PRESERVATION PLAN

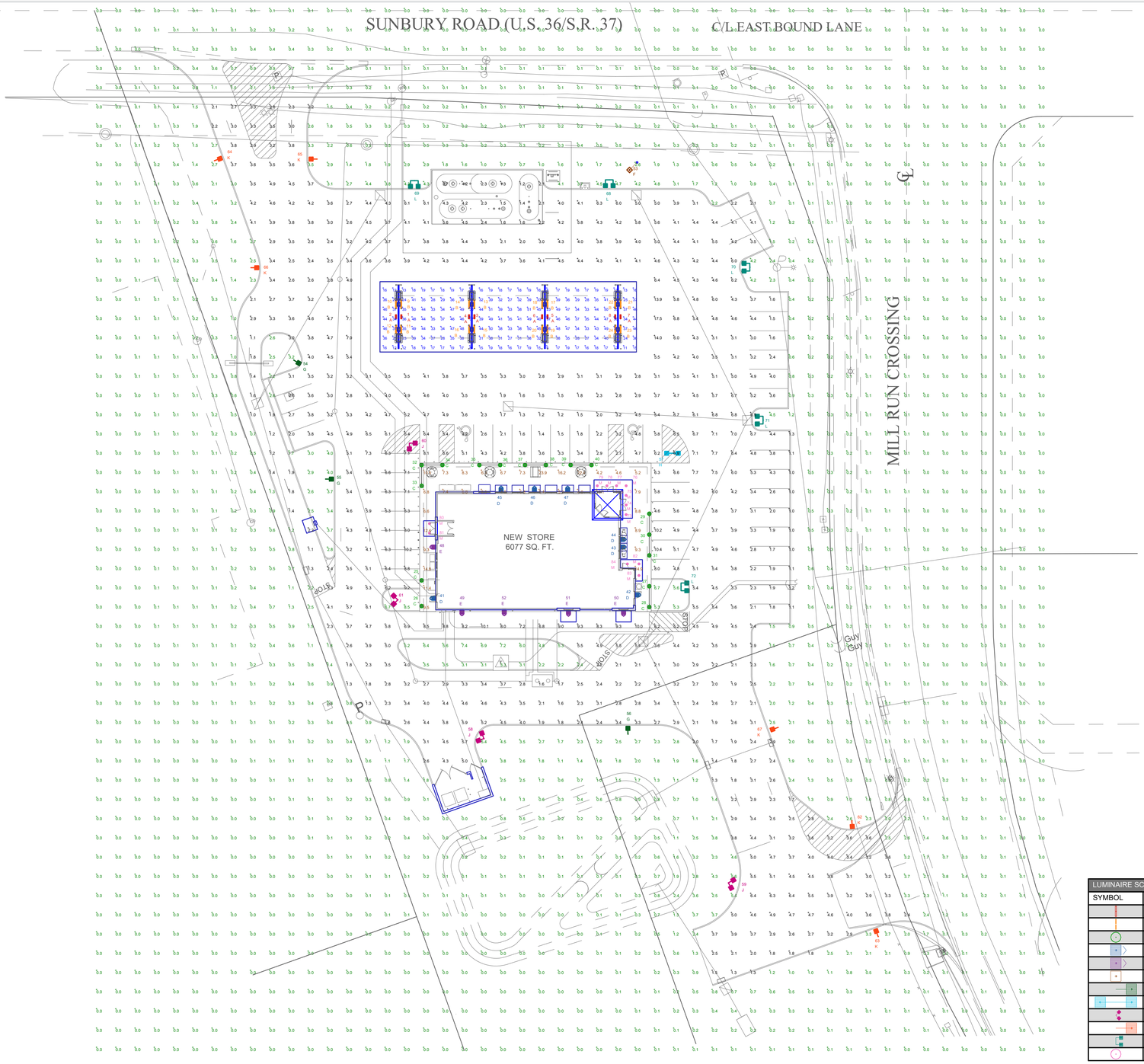
SHEETZ DELAWARE
PREPARED FOR
BIRD & BULL ENGINEER'S & SURVEYORS, INC.
3500 SNOUFFER RD #225, COLUMBUS, OH 43235

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DATE	2-3-20
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SHEET	

L-2

red leonard associates
1340 Kemper Meadow Dr. | Cincinnati, OH 45240 | 513-574-9500
www.redleonard.com



LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1 - 8	A	15.83
9 - 24	B	15.83
25 - 40	C	3
41, 42	D	9.33
43 - 47	D	12
48, 49	E	12
50, 51	E	10
52	E	12
53	F	1
54 - 56	G	23
57	H	23
58 - 61	J	23
62 - 67	K	23
68 - 72	L	23
73 - 84	M	11.33

NOTE:
- ALL AREA LIGHTS ON NEW 20 FT. POLE MOUNTED ON 3 FT. CONCRETE BASE

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
BUILDING PERIMETER WALKWAY	9.15	23.9	4.2	2.18	5.69
SITE PAVED AREA	3.93	17.5	1.0	3.93	17.50
UNDEFINED	0.40	8.5	0.0	N.A.	N.A.
UNDER CANOPY	31.25	51	6	5.21	8.50

NORTH

GRAPHIC SCALE
0 30 60 90 120

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	8	A	SINGLE	5080	1.030	B0-U5-G0	66	528	CREE, INC.	FLD-OL-15-D2-14-E-UL-XX-700 w/XA-XFR9XX
	16	B	4 FT LINEAR	4588	1.030	B0-U5-G0	66	2112	CREE, INC.	FLD-OL-40-D4-07-E-UL-XX-700 w/XA-XFR9XX
	16	C	SINGLE	1441	1.030	B1-U0-G1	22	352	CREE, INC.	PWY-EDG-3M-P3-02-E-UL-XX-350-57K
	7	D	SINGLE	2947	1.030	B1-U0-G1	36	252	CREE, INC.	SEC-EDG-3M-WM-02-E-UL-XX-525
	5	E	SINGLE	5893	1.030	B2-U0-G2	68	340	CREE, INC.	SEC-EDG-3M-WM-04-E-UL-XX-525
	1	F	SINGLE	11678	1.040	B4-U0-G0	86	86	CREE, INC.	OSQ-AAXX w/PGM-1 + OSQ-A-NM-15D-B-57K-UL-XX
	3	G	SINGLE	11648	1.030	B2-U0-G2	86	258	CREE, INC.	OSQ-DAXX + OSQ-A-NM-4ME-B-57K-UL-XX
	1	H	BACK-BACK	11648	1.030	B2-U0-G2	86	172	CREE, INC.	OSQ-DAXX + OSQ-A-NM-4ME-B-57K-UL-XX
	4	J	2 @ 90 DEGREES	11648	1.030	B2-U0-G2	86	688	CREE, INC.	OSQ-DAXX + OSQ-A-NM-4ME-B-57K-UL-XX
	6	K	SINGLE	8950	1.030	B1-U0-G2	86	516	CREE, INC.	OSQ-DAXX + OSQ-A-NM-4ME-B-57K-UL-XX w_OSQ-BLSMF
	5	L	TWIN	8950	1.030	B1-U0-G2	86	860	CREE, INC.	OSQ-DAXX + OSQ-A-NM-4ME-B-57K-UL-XX w_OSQ-BLSMF
	12	M	SINGLE	328	1.000	N.A.	8.1	97.2	B-K LIGHTING, INC.	BKLT CH-LED-e17-FL-BZP-12 (BY OTHERS)

PERSONS USING THIS PROGRAM ARE ADVISED THAT THIS PROGRAM MAY CONTAIN ERRORS WHICH RED LEONARD ASSOCIATES, INC. LETS THEM KNOW AS SOON AS THEY ARE DISCOVERED. IN ADDITION, THE USE OF THIS PROGRAM TO AID IN LAYOUT OF LIGHTING AND ESTIMATING MATERIAL QUANTITIES IS NOT INTENDED TO REMOVE THE RESPONSIBILITY OF THE USER TO VERIFY THE COMPLETENESS OF ANY BILL OF MATERIAL AND THAT THE LAYOUT OR USE OF LUMINAIRES IS IN FULL ACCORDANCE WITH ALL LOCAL, STATE, OR FEDERAL STATUTES, REGULATIONS OR OTHER REQUIREMENTS, OR THE REQUIREMENTS OF ANY INSURANCE GROUP, ORGANIZATION OR CARRIER REGARDING LUMINAIRES AND THEIR APPLICATION.

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ILLUMINATION RESULTS SHOWN ON THIS LIGHTING APPLICATION ARE BASED ON PROJECT PARAMETERS PROVIDED BY THE MANUFACTURER LISTED, USED IN CONJUNCTION WITH LUMINAIRE TEST PROCEDURES CONDUCTED UNDER LABORATORY CONDITIONS. ACTUAL PROJECT CONDITIONS DIFFERING FROM THESE PARAMETERS MAY AFFECT FIELD RESULTS. THE CUSTOMER IS RESPONSIBLE FOR VERIFYING COMPLIANCE WITH ANY APPLICABLE ELECTRICAL, LIGHTING, OR ENERGY CODE.

SCALE: 1" = 30'
LAYOUT BY: DAR
DWG SIZE: D
DATE: 2/3/20

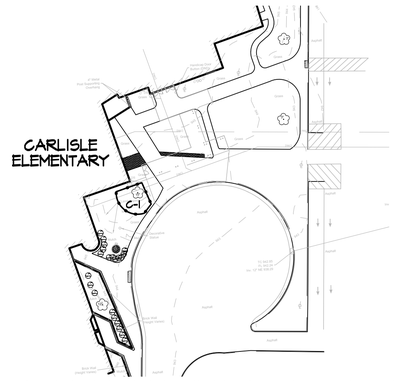
PROJECT NAME:
SHEETZ
DELAWARE, OH
DRAWING NUMBER:
RL-6559-S1

rla

PLAN REVIEW E:

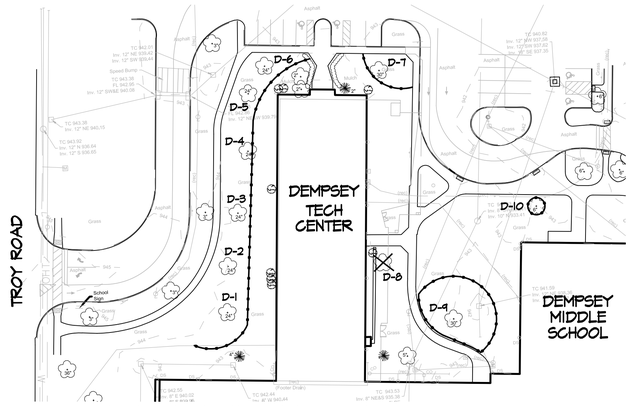
Delaware City Schools

Schultz Elementary



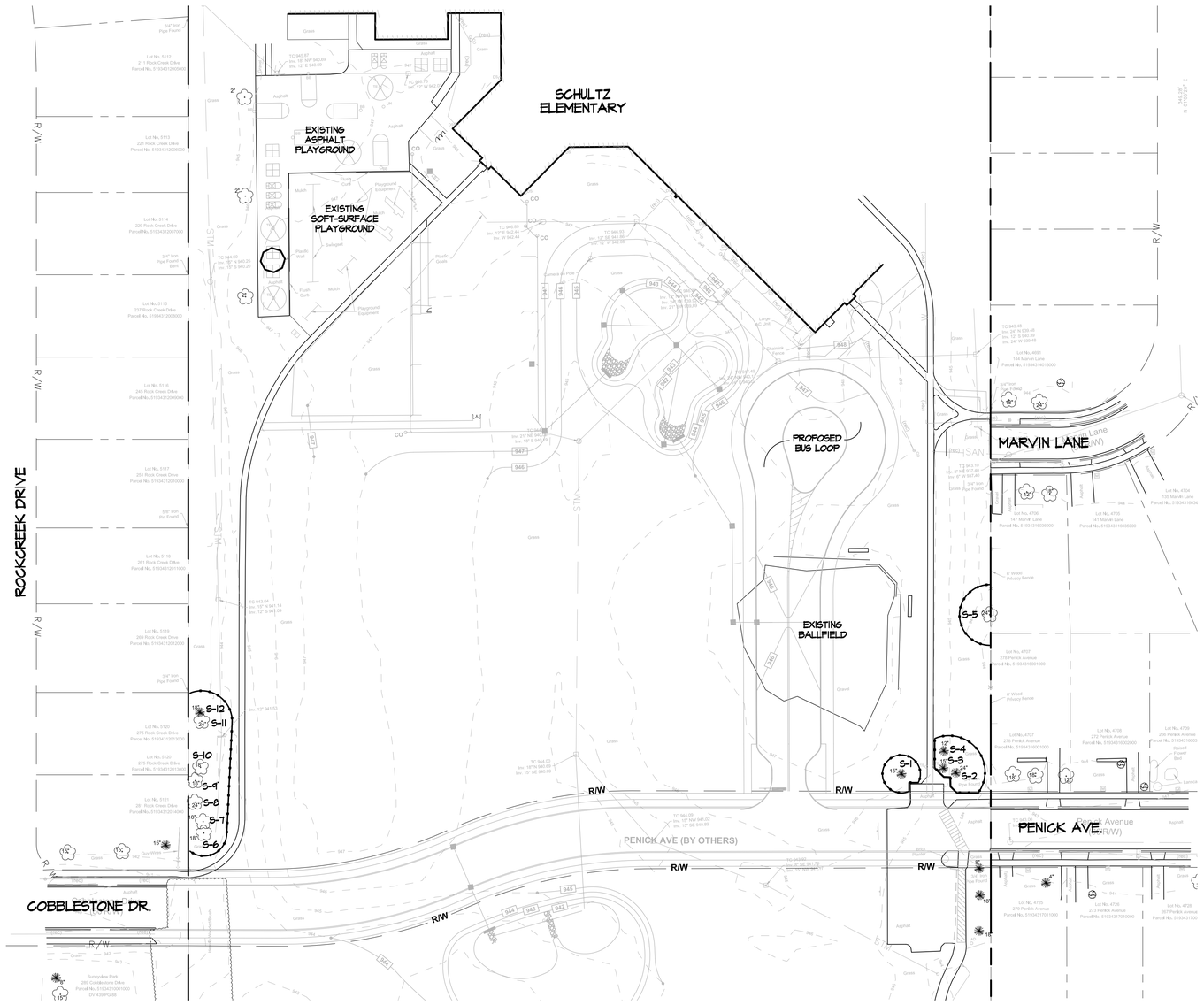
1 CARLISLE ELEMENTARY SCHOOL

SCALE: 1" = 50'



2 DEMPSEY MIDDLE SCHOOL

SCALE: 1" = 50'



3 SCHULTZ ELEMENTARY SCHOOL

SCALE: 1" = 50'

TREES INVENTORY

WITHIN PROJECT LIMTS

TREE INVENTORY SCHEDULE - CARLISLE ELEMENTARY SCHOOL

KEY	TREE SPECIE (COMMON NAME)	DBH	CONDITION	COMMENTS
C-1	CRABAPPLE	15"	FAIR	PRESERVE
TOTAL TREE CALIPER (DBH) REMOVED = 0"				

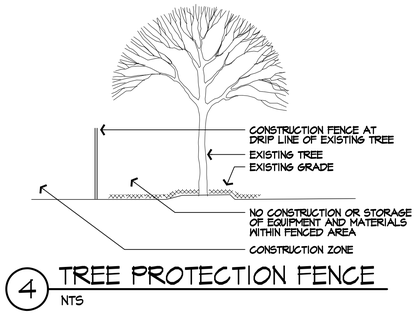
TREE INVENTORY SCHEDULE - DEMPSEY MIDDLE SCHOOL

KEY	TREE SPECIE (COMMON NAME)	DBH	CONDITION	COMMENTS
D-1	PIN OAK	24"	FAIR	PRESERVE
D-2	PIN OAK	24"	POOR	PRESERVE
D-3	PIN OAK	24"	FAIR	PRESERVE
D-4	HONEYLOCUST	24"	GOOD	PRESERVE
D-5	HONEYLOCUST	24"	GOOD	PRESERVE
D-6	LONDON PLANETREE	24"	FAIR	PRESERVE
D-7	LONDON PLANETREE	30"	POOR	PRESERVE
D-8	HORNBEAM	10"	FAIR	REMOVE
D-9	HONEYLOCUST	30"	FAIR	PRESERVE
D-10	MAPLE	6"	FAIR	PRESERVE
TOTAL TREE CALIPER (DBH) REMOVED = 10"				

TREE INVENTORY SCHEDULE - SCHULTZ ELEMENTARY SCHOOL

KEY	TREE SPECIE (COMMON NAME)	DBH	CONDITION	COMMENTS
S-1	WHITE PINE	15"	GOOD	PRESERVE
S-2	WHITE PINE	24"	GOOD	PRESERVE
S-3	WHITE PINE	15"	GOOD	PRESERVE
S-4	WHITE PINE	12"	GOOD	PRESERVE
S-5	HACKBERRY	24"	GOOD	PRESERVE
S-6	PIN OAK	18"	GOOD	PRESERVE
S-7	PIN OAK	18"	FAIR	PRESERVE
S-8	PIN OAK	24"	FAIR	PRESERVE
S-9	PIN OAK	18"	FAIR	PRESERVE
S-10	PIN OAK	18"	FAIR	PRESERVE
S-11	HACKBERRY	24"	FAIR	PRESERVE
S-12	WHITE PINE	18"	FAIR	PRESERVE
TOTAL TREE CALIPER (DBH) REMOVED = 0"				

TOTAL TREE CALIPER (DBH) REMOVED = 10"
FOR ALL 3 LOCATIONS



4 TREE PROTECTION FENCE

NTS

GENERAL NOTES

1. ALL TREES IN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED. TREES TO BE PRESERVED SHALL BE PROTECTED WITH HIGH VISIBILITY TREE PROTECTION FENCE AS SHOWN.
2. ONLY TREES 6" CAL. (DBH) AND LARGER WITHIN DEVELOPMENT LIMITS NOTED ON THESE PLANS.
3. PROTECTION FENCING OR BARRIER SHALL REMAIN THROUGHOUT CONSTRUCTION AND ANY SUBSEQUENT GRADING OR EXCAVATION UNLESS OTHERWISE APPROVED ON A CLEARING AND GRADING PLAN. IN NO CASE SHALL MATERIALS, DEBRIS, FILL, VEHICLES OR EQUIPMENT BE STORED WITHIN THIS ENCLOSURE.

LEGEND

EXISTING TREES TO REMAIN

EXISTING TREES TO BE REMOVED

TREE PROTECTION FENCE

TREE TO BE PROTECTED

X = 1' PER CALIPER INCH (DBH)

0' 25' 50' 100'

NORTH

PRELIMINARY
NOT FOR CONSTRUCTION

EDGE
PLANNING • LANDSCAPE ARCHITECTURE • URBAN DESIGN

330 WEST SPRING STREET, SUITE 350
COLUMBUS, OHIO 43215
614-486-3343

SCHULTZ ELEMENTARY SCHOOL - ADDITIONS

DELAWARE CITY SCHOOLS

599 PENNSYLVANIA AVE,
DELAWARE, OH 43015

TRIAD
172 E STATE ST, SUITE 600
COLUMBUS, OH 43215
PHONE: (614) 942-1050
MAIN@TRIADARCHITECTS.COM

Project Status
11/06/2019

DRAWN BY: Author
CHECKED BY: Checker
PROJECT NUMBER: 1905

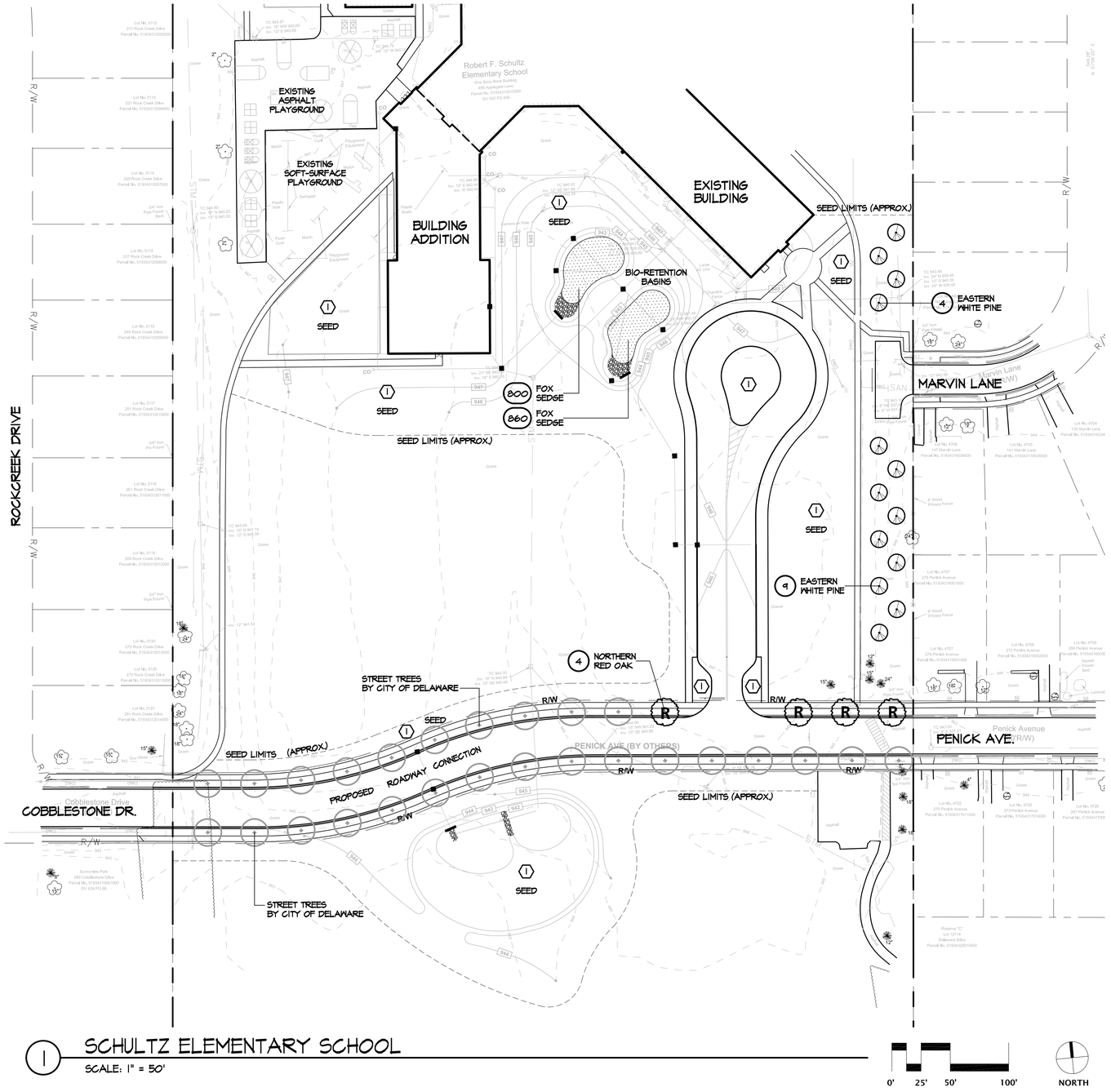
L-101
TREE PRESERVATION PLAN

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1905 - DEMPSEY MIDDLE SCHOOL - ADDITIONS

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1 SCHULTZ ELEMENTARY SCHOOL

SCALE: 1" = 50'

0' 25' 50' 100' NORTH

GENERAL NOTES

1. EACH CONTRACTOR IS TO VERIFY WITH OWNER AND UTILITY COMPANIES THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION, TO DETERMINE IN THE FIELD THE ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL CALL UTILITY PROTECTION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
2. EXAMINE FINISH SURFACE, GRADES, TOPSOIL QUALITY AND DEPTH. DO NOT START ANY WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY LIMITS OF WORK BEFORE STARTING.
3. CONTRACTOR RESPONSIBLE FOR COST OF REPAIRS TO EXISTING SITE CONDITIONS WHEN DAMAGED BY CONTRACTOR. REPAIR TO THE SATISFACTION OF THE OWNER.
4. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN LAWN AREAS.
5. FINE GRADE LAWN AREAS TO PROVIDE A SMOOTH AND CONTINUAL GRADE FREE OF IRREGULARITIES OR DEPRESSIONS.
6. CONTRACTOR SHALL SEED ALL AREAS DISTURBED DURING CONSTRUCTION, SEE PLAN.
7. ALL PLANTS SHALL MEET OR EXCEED STANDARDS SET IN THE U.S.A. STANDARD FOR NURSERY STOCK.
8. ALL PLANTING OPERATIONS SHALL ADHERE TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.

CONSTRUCTION NOTES

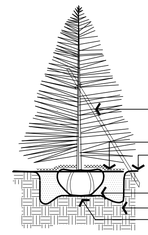
(1) LAWN AREA, FILL WITH TOPSOIL OR RE-SPREAD EXISTING STOCKPILED TOPSOIL, MINIMUM DEPTH SHALL BE 4". MEET ADJACENT SURFACES FLUSH. PROVIDE POSITIVE DRAINAGE ACROSS ALL SURFACES.

LEGEND

EXISTING TREES TO REMAIN

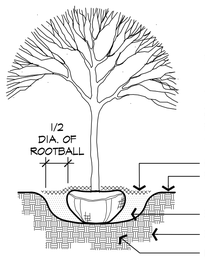
R REPLACEMENT TREES

STREET TREE - BY CITY OF DELAWARE



2 EVERGREEN TREE PLANTING

NTS



3 TREE PLANTING

NTS

PRELIMINARY
NOT FOR CONSTRUCTION

EDGE
PLANNING • LANDSCAPE ARCHITECTURE • URBAN DESIGN
330 WEST SPRING STREET, SUITE 350
COLUMBUS, OHIO 43215
614-486-3343

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SCHULTZ ELEMENTARY SCHOOL - ADDITIONS

DELAWARE CITY SCHOOLS

599 PENNSYLVANIA AVE,
DELAWARE, OH 43015

TRIAD
172 E STATE ST, SUITE 600
COLUMBUS, OH 43215
PHONE: (614) 942-1050
MAIN@TRIADARCHITECTS.COM

Project Status
11/06/2019

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1905 - DEMPSEY MIDDLE SCHOOL - ADDITIONS

PLANT MATERIALS LIST NOTE: CONTRACTOR RESPONSIBLE FOR PLANT QUANTITIES SHOWN ON PLAN.

QTY.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
	REPLACEMENT TREES				
4	NORTHERN RED OAK	Quercus rubra	2-1/2" Cal.	B&B	SPACED @ 40' O.C. PER PLAN
					FINAL SPECIES PER SHADE TREE COMMISSION REVIEW.
	EVERGREEN TREES				
13	EASTERN WHITE PINE	Pinus strobus	6' Hgt.	B&B	
	PERENNIALS/ ORNAMENTAL GRASSES/ SEDGES				
1,660	FOX SEDGE	Carex vulpinoidea	3" Pots	Cont.	SPACED @ 18" O.C.

TREE REPLACEMENT MATRIX

PROJECT SITE	MAJOR TREES' REMOVED (DBH)
CARLISLE ELEMENTARY SCHOOL	0"
DEMPSEY MIDDLE SCHOOL	10"
SCHULTZ ELEMENTARY SCHOOL	0"
TOTAL 'MAJOR TREES' REMOVED REQUIRING REPLACEMENT PER 1168.04	10"
TOTAL REPLACEMENT TREES PROVIDED	10"

DRAWN BY: Author
CHECKED BY: Checker
PROJECT NUMBER: 1905

L-201

TREE REPLACEMENT PLAN

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