



24th. Street S.E. 60'

(A Public Right-of-Way)

SPECIFICATION NOTE:  
SEE SHEET C0.1 FOR PLAN  
SPECIFICATIONS AND REQUIREMENTS

EXISTING CONDITIONS NOTE:  
EXISTING CONDITIONS SURVEY WAS PROVIDED TO EXCEL BY  
ALBAN SURVEYING CO. DATED 04/20/2022. APPLICABLE SURVEY  
NOTES & LEGEND ARE PROVIDED BELOW FOR REFERENCE.

SURVEY CONTACT:  
JOHN ALBAN  
ALBAN SURVEYING CO.  
38052 EUCLID AVENUE, SUITE 200  
WILLOUGHBY, OHIO 44094  
216-702-7875

DEMOLITION NOTE:  
DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE  
PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE  
CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE,  
REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING  
CONSTRUCTION.

UTILITY NOTES:  
The size and location, both horizontal and vertical of the underground utilities  
shown hereon, have been obtained by a search of available records. Verification by  
field observation has been conducted where practical. This survey is subject to  
change upon receipt of any additional obtainable underground utility information.  
Therefore, Alban Surveying Company can not guarantee the completeness nor  
accuracy thereof.  
Before excavating in this area, call "OUPS" at 800-362-2764 for field locations  
of any underground utility facilities.

BASIS OF BEARING:  
Bearings are based on Ohio State Plane North  
Zone (NAV88) by GPS observations.

NOTE:  
All pins set are 5/8" x 30" rebar with yellow  
cap marked "J. Alban 7651".

FLOOD ZONE INFORMATION:  
The subject parcel is located in Flood Zone "X", areas determined to be  
outside of the 0.2% annual chance floodplain, as shown on FEMA  
#39151C0191F, with an effective date of September 14, 2018.

- Symbol Legend**
- Catch Basin
  - Water Valve
  - Power Pole
  - Traffic Signal Pole
  - Storm Manhole
  - Sanitary Manhole

PROPOSED DEVELOPMENT FOR:  
**STARBUCKS & PANDA EXPRESS**  
LINCOLN WAY E • MASSILLON, OH 44646

PROFESSIONAL SEAL

PRELIMINARY DATES

JAN. 17, 2023  
JAN. 20, 2023  
MAR. 24, 2023

JOB NUMBER

2178020

SHEET NUMBER

C1.0

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PROPOSED DEVELOPMENT FOR:

**STARBUCKS & PANDA EXPRESS**

LINCOLN WAY E • MASSILLON, OH 44646

NOT FOR CONSTRUCTION



CIVIL EXISTING SITE AND DEMOLITION PLAN



SPECIFICATION NOTE:  
SEE SHEET C0.1 FOR PLAN  
SPECIFICATIONS AND REQUIREMENTS

SITE INFORMATION:

EXISTING SITE PARCEL NUMBERS: 600764, 607402, 612594, 601670

PROPERTY AREA (TOTAL): 98,935 S.F. (2.27 ACRES)  
PROPOSED PANDA SITE = 52,720 S.F. (1.21 AC)  
PROPOSED STARBUCKS SITE = 46,215 S.F. (1.06 AC)

EXISTING ZONING: RM-1

PROPOSED ZONING: B-3 (REZONE COMPLETED)

PROPOSED USE: QUICK SERVE RESTAURANTS WITH DRIVE-THRU SERVICE

AREA OF SITE DISTURBANCE: 103,181 SF (2.37 AC)

SETBACKS: BUILDING: FRONT = 60'  
SIDE = 10'  
REAR = 20'

PAVEMENT: OFF-STREET PARKING PERMITTED IN REQUIRED YARDS

MAX. BLDG HEIGHT ALLOWED: 30'

PARKING REQUIRED: 1 SPACE PER 150 S.F. GFA

STARBUCKS: 2230 SF = 15 SPACES REQUIRED  
PANDA EXPRESS: 2664 SF = 18 SPACES REQUIRED

PARKING PROVIDED:

STARBUCKS: 34 TOTAL SPACES PROVIDED; 2 HC STALLS  
PANDA EXPRESS: 36 TOTAL SPACES PROVIDED; 2 HC STALLS

EXISTING SITE DATA (OVERALL DEVELOPMENT)			
	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	2.27	98,935	
BUILDING FLOOR AREA	0.00	0	0.0%
PAVEMENT (ASP. & CONC.)	0.00	0	0.0%
TOTAL IMPERVIOUS	0.00	0	0.0%
LANDSCAPE/ OPEN SPACE	2.27	98,935	100.0%

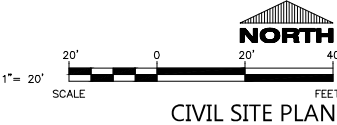
PROPOSED SITE DATA (OVERALL DEVELOPMENT)			
	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	2.27	98,935	
BUILDING FLOOR AREA	0.11	4,965	5.0%
PAVEMENT (ASP. & CONC.)	1.34	58,287	58.9%
TOTAL IMPERVIOUS	1.45	63,252	63.9%
LANDSCAPE/ OPEN SPACE	0.82	35,683	36.1%

CURB & GUTTER MARKING KEY:		PAVEMENT HATCH KEY:	
	INVERTED CURB & GUTTER		STANDARD ASPHALT
	SHEDDING CURB & GUTTER		CONCRETE; SEE PLAN & C0.1 FOR DETAILS/SPECIFIED THICKNESS

- SITE PLAN NOTES:
- A KNOX BOX (MODEL 3200) SHALL BE PROVIDED AT THE PRIMARY ENTRANCE TO ALL NEW BUILDINGS AT A HEIGHT OF 4'-6" FROM FINAL GRADE. COORDINATE ADDITIONAL REQUIREMENTS WITH LOCAL BUILDING INSPECTOR/FIRE DEPARTMENT AS NEEDED.
  - GC TO COORDINATE WITH SITE SPECIFIC OWNER/TENANT PRIOR TO CONSTRUCTION TO REVIEW ANY ADDITIONAL SITE SPECIFIC REQUIREMENTS/SCOPES OF WORK AS NEEDED.

SITE PLAN KEYNOTES	
1	HEAVY DUTY ASPHALT SECTION (TYP.)
3	CONCRETE SIDEWALK/PATIO (TYP.)
4	LIGHT DUTY CONCRETE - PARKING AREAS ONLY (TYP.)
5	HEAVY DUTY/DRIVE-THRU/DUMPSTER PAD CONCRETE (TYP.)
8	CONCRETE STOOP (TYP.) SEE ARCH/STRUCT PLANS FOR FINAL LOCATIONS & DETAILS
9	RAISED WALK (TYP.)
10	FLUSH WALK (TYP.)
12	CURB RAMP (TYP.)
13	ADA SIDEWALK RAMP (TYP.)
14	18" STANDARD CURB & GUTTER (6" CURB HEIGHT) (TYP.)
15	18" MOUNTABLE CURB & GUTTER (3" CURB HEIGHT) (TYP.)
16	CURB TAPER (TYP.)
18	CONCRETE TRANSFORMER PAD BY UTILITY SUPPLIER (CONTRACTOR TO VERIFY FINAL LOCATION & DESIGN PRIOR TO CONSTRUCTION)
19	HANDICAP SIGN (TYP.)
20	HANDICAP STALL & STRIPING PER STATE CODES.
21	PRECAST CONCRETE WHEEL STOP ANCHORED TO PAVEMENT (TYP.)
22	PROPOSED PYLON SIGN LOCATION (DETAILS, FINAL LOCATION, & APPROVAL BY SIGN VENDOR)
23	DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
24	6" CONCRETE BOLLARDS (SEE DETAIL ON ARCH PLANS)
25	STOP SIGN (TYP.)
26	RIGHT TURN ONLY SIGN (R3-5R) (TYP.)
27	DO NOT ENTER SIGN (TYP.)
28	DOUBLE SIDED SIGN - STOP/RIGHT TURN ONLY ON SOUTH FACING SIDE. DO NOT ENTER ON NORTH FACING SIDE.
29	USER-SPECIFIC DIRECTIONAL SIGNAGE. COORDINATE WITH OWNER/TENANT
30	WAVE STYLE BIKE RACK (FINAL TYPE/COLOR BY OWNER/TENANT)

31	DETECTABLE WARNING PLATE
32	TRAFFIC FLOW ARROWS. COLOR TO MATCH PARKING STALL STRIPING.
33	PAINT STRIPING (TYP.). COLOR TO MATCH PARKING STALL STRIPING.
34	REPLACE ASPHALT PAVEMENT PER CITY OF MASSILON/OH DOT STANDARDS AS NEEDED FOR PROPOSED SITE IMPROVEMENTS. SEE DETAIL ON C2.0. (TYP.)
35	CONCRETE SIDEWALK PER LOCAL STANDARDS. (TYP.)
36	VERSA-LOK OR EQUIVALENT MODULAR BLOCK RETAINING WALL SYSTEM. COLOR/STYLE TO BE COORDINATED WITH OWNER/TENANT. REFERENCE SHEET C1.2 FOR PROPOSED WALL HEIGHTS AND C2.0 FOR GENERAL RETAINING WALL DETAIL. FINAL DESIGN DETAILS & SPECIFICATIONS BY WALL SUPPLIER. WALL DESIGNER TO ACCOUNT FOR SITE FEATURES SUCH AS LIGHT POLES, FENCES, UTILITIES, ETC NEAR OR ADJACENT TO RETAINING WALL
37	6' TALL MINIMUM OPAQUE FENCE. FINAL COLOR/STYLE BY OWNER/TENANT. CONTRACTOR TO COORDINATE FENCING REQUIREMENTS WITH RETAINING WALL SUPPLIER AS NEEDED.
38	DEDICATED MOBILE ORDER PICK-UP PARKING SPACE. COORDINATE WITH OWNER/TENANT FOR SPECIFIC SIGNAGE AND/OR PAVEMENT MARKINGS. (TYP.)
39	COLUMN. (TYP.) (SEE ARCH/STRUCT PLANS FOR DETAILS)
40	CANOPY. (TYP.) (SEE ARCH PLANS)
41	CLEARANCE BAR. COORDINATE WITH OWNER/TENANT FOR SITE SPECIFIC DRIVE-THRU EQUIPMENT REQUIREMENTS.
42	MENU BOARD & SPEAKER POST SYSTEM. COORDINATE WITH OWNER/TENANT FOR FINAL LOCATIONS, FOUNDATION DETAILS, CONDUIT REQUIREMENTS, ETC.
43	CONTRACTOR TO COORDINATE WITH OWNER/TENANT FOR FINAL PATIO LAYOUT. SEE SHEET C1.2 FOR PROPOSED PATIO GRADING/DRAINAGE.
44	6" DRIVE-THRU VERTICAL CURB. (TYP.)
45	6" CURB. SEE SHEET C1.2 FOR PROPOSED GRADES.
46	CONCRETE WALL. SEE ARCH/STRUCT PLANS. PROVIDE THRU-WALL DRAINAGE OPENINGS AS NEEDED TO DRAIN PATIO AREA.
47	APPROXIMATE EXTENT OF UNDERGROUND DETENTION AREA. SEE SHEET C1.3.
48	CURB WITHIN ROW SHALL BE 6" WIDE X18" DEEP STRAIGHT CURB PER LOCAL REQUIREMENTS. (ODOT TYPE 6 CURB)



PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:

# STARBUCKS & PANDA EXPRESS

LINCOLN WAY E • MASSILLON, OH 44646

PROFESSIONAL SEAL

PRELIMINARY DATES

DEC. 8, 2022  
JAN. 10, 2023  
JAN. 17, 2023  
JAN. 20, 2023  
MAR. 24, 2023

JOB NUMBER

2178020

SHEET NUMBER

# C1.1



24th Street S.E. 60'  
(A Public Right-of-Way)

#### EROSION/SEDIMENT CONTROL NOTE:

THE CONTRACTOR SHALL PREVENT AND/OR REDUCE AND CONTROL SOIL EROSION RESULTING FROM THE PROPOSED IMPROVEMENTS. THE USE OF SILT FENCING, JUTE MATTING, TEMPORARY SEEDING, SILT CHECKS, INLET PROTECTION AROUND ALL CATCH BASINS, STABILIZED CONSTRUCTION ENTRANCES, ETC. WILL BE REQUIRED. SEDIMENT CONTROL STRUCTURES/DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL RAINWATER AND LAND DEVELOPMENT - OHIO'S STANDARDS FOR STORMWATER MANAGEMENT, LAND DEVELOPMENT, AND URBAN STREAM PROTECTION. SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS SET FORTH ON THE APPROVED STORM WATER POLLUTION PREVENTION PLAN IF APPLICABLE, OR AS DETAILED ON THE CONSTRUCTION PLANS, AS SPECIFIED BY THE CITY OF MASSILLON.

#### SURVEY NOTES

##### BASIS OF BEARING:

Bearings are based on Ohio State Plane North Zone (NAV88) by GPS observations.

##### NOTE:

All pins set are 5/8" x 30" rebar with yellow cap marked "J. Alban 7651".

##### FLOOD ZONE INFORMATION:

The subject parcel is located in Flood Zone "X", areas determined to be outside of the 0.2% annual chance floodplain, as shown on FEMA #39151C0191F, with an effective date of September 14, 2018.

##### OVERALL SITE STORMWATER DISCHARGE:

PROJECT SITE WILL DISCHARGE TO CITY STORM SEWER IN 25TH STREET ROW. SITE IS WITHIN OVERALL WATERSHED OF TUSCARAWAS RIVER

#### SPECIFICATION NOTE: SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

#### NOTES:

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.

##### INLET PROTECTION NOTE:

IP

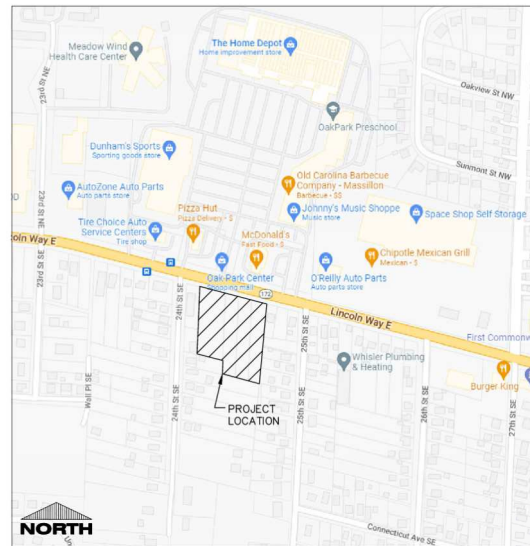
CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

##### STABILIZED CONSTRUCTION ENTRANCE NOTE:

CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.

##### CONCRETE WASHOUT NOTE:

CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.



PROJECT LOCATION MAP

## PROPOSED DEVELOPMENT FOR: STARBUCKS & PANDA EXPRESS LINCOLN WAY E • MASSILLON, OH 44646

PROFESSIONAL SEAL

#### PRELIMINARY DATES

DEC. 19, 2022  
JAN. 10, 2023  
JAN. 17, 2023  
JAN. 20, 2023  
MAR. 24, 2023

#### JOB NUMBER

2178020

#### SHEET NUMBER

# C1.2A

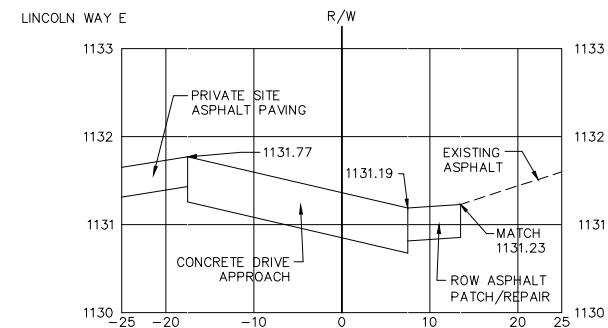
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NOT FOR CONSTRUCTION



CIVIL GRADING AND EROSION CONTROL PLAN





SECTION A

1" = 20'

SCALE

FEET

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24th. Street S.E. 60'  
(A Public Right-of-Way)

**SPECIFICATION NOTE:**  
SEE SHEET C0.1 FOR PLAN  
SPECIFICATIONS AND REQUIREMENTS

**DOWNSPOUT NOTE:**  
[DS] = DENOTES DOWNSPOUT  
LOCATIONS. MAKE CONNECTION TO DS WITH 6"  
PVC ABOVE GRADE. ALL DOWNSPOUTS SHALL BE  
CONNECTED TO STORM SEWER. SEE ARCH PLANS  
FOR FINAL LOCATIONS.

**CLEANOUT NOTE:**  
[CO] = DENOTES LOCATIONS WHERE  
CONTRACTOR SHALL INSTALL CLEANOUTS, SEE  
C0.1 FOR SPECIFICATION.

**NOTE:** EXISTING SANITARY AND WATER LATERALS  
FROM PREVIOUS RESIDENTIAL HOMES MAY EXIST  
ON THE SUBJECT SITE. IF THESE SERVICES ARE  
ENCOUNTERED, CAP/ABANDON SERVICES PER  
LOCAL STANDARDS.

**UTILITY NOTE:**  
SITE UTILITY CONTRACTOR SHALL COORDINATE FINAL  
UTILITY REQUIREMENTS, LOCATIONS, AND DEPTHS WITH  
EACH SPECIFIC OWNER/TENANT'S INTERNAL PLUMBING  
PLANS PRIOR TO CONSTRUCTION.

**NOTE:** CONTRACTOR SHALL COORDINATE WITH LANDLORD  
WORK LETTER AND/OR TENANT'S FINAL CONSTRUCTION  
DOCUMENT PLAN SET FOR SPECIFIC SITE REQUIREMENTS  
RELATING TO THE EACH OWNER/TENANT'S SCOPES OF WORK.

**NOTE:** PRIOR TO COMMENCING ANY WORK WITHIN CITY ROW  
OR PRIOR TO MAKING ANY UTILITY TAPS/CONNECTIONS,  
CONTRACTOR SHALL CONTACT APPROPRIATE PUBLIC UTILITY  
DEPARTMENTS TO FACILITATE ANY NECESSARY INSPECTIONS,  
WORK IN ROW PERMITS, ETC.

**NOTE:** CONTRACTOR SHALL COORDINATE A PRIVATE LOCATE  
TO BE COMPLETED TO LOCATE UNDERGROUND UTILITIES AS  
NEEDED. EXISTING UTILITIES SHALL BE FIELD VERIFIED AND  
INFORMATION PROVIDED TO THE DESIGN ENGINEER AS  
NEEDED. DOWNSTEAM UTILITY CONNECTIONS MUST BE  
VERIFIED PRIOR TO CONSTRUCTION. NOTIFY DESIGN ENGINEER  
WITH ANY DISCREPANCIES.

**CURB INLET UNDERDRAIN NOTE:**  
ALL ONSITE CURB INLET STRUCTURES SHALL BE PROVIDED  
WITH A MINIMUM OF TWO (2) PERFORATED/SOCKED  
UNDERDRAINS EXTENDED 20' OUT FROM STRUCTURE BELOW  
SITE CURB LINES. UNDERDRAINS SHALL BE 4" DIA AND  
SHALL BE PLACED AT AN INVERT ELEVATION OF 2' BELOW  
RIM ELEVATION OF EACH STRUCTURE. SLOPE UNDERDRAIN  
AT 1% TOWARD INLET. REFER TO PAVING WITH UNDERDRAIN  
DETAIL ON C2.0.

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100 Camelot Drive  
Fond du Lac, WI 54935  
920-926-9800  
excelengineer.com

**PROJECT INFORMATION**

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**STARBUCKS & PANDA EXPRESS**  
LINCOLN WAY E • MASSILLON, OH 44646

PROFESSIONAL SEAL

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**SHEET NUMBER**  
**C1.3A**

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**NORTH**  
1" = 20'  
SCALE  
CIVIL UTILITY PLAN







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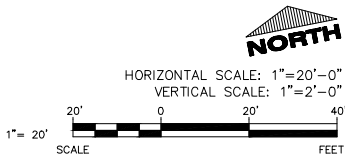
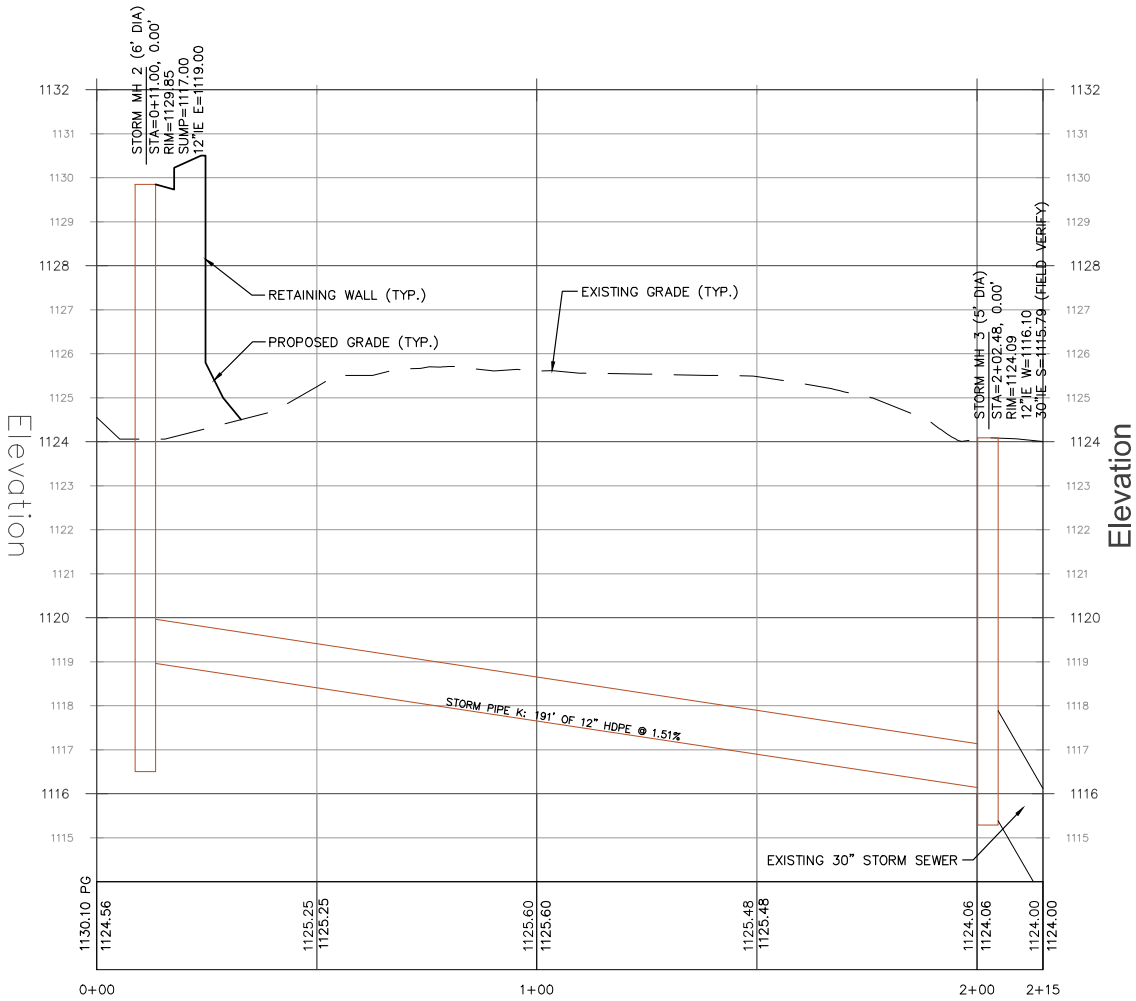
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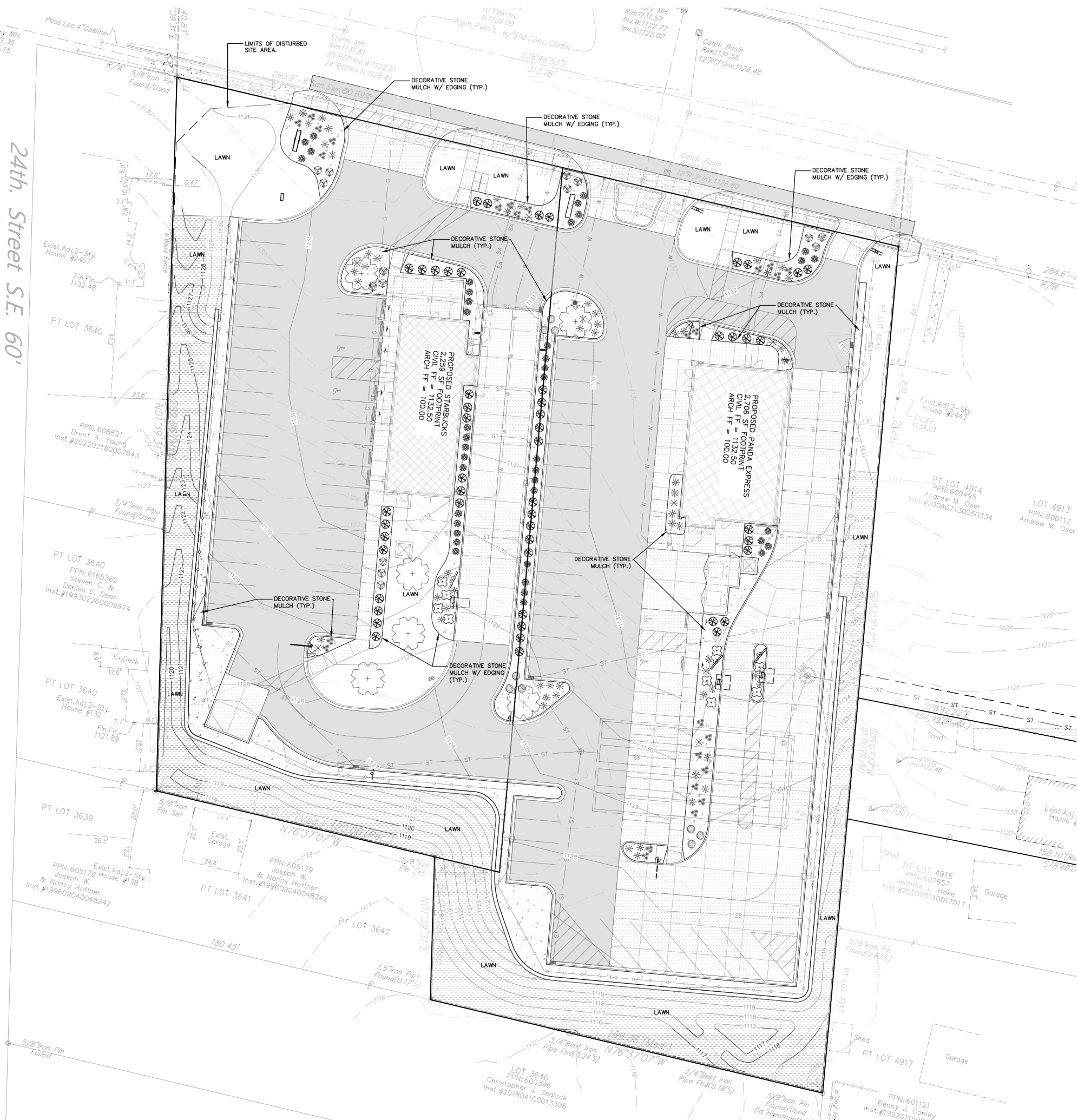
**C1.3B**

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CIVIL UTILITY PLAN - STORM SEWER PLAN/PROFILE

24th Street S.E. 60'  
(A Public Right-of-Way)



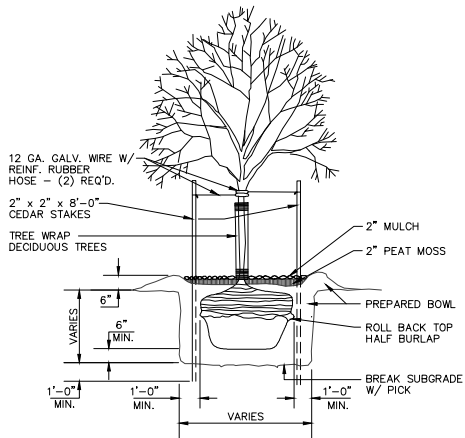
SPECIFICATION NOTE:  
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SPECIFICATIONS AND REQUIREMENTS

EROSION MATTING LOCATION

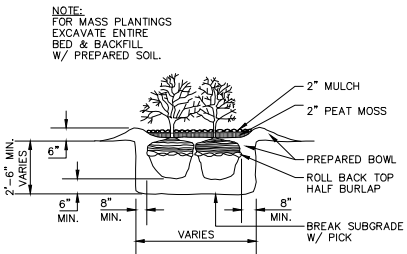
LANDSCAPING PLANTING SCHEDULE				
SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
DECIDUOUS TREES				
	Jack Flowering Pear	Pyrus calleryana 'Jazzam'	2" CAL	6
DECIDUOUS SHRUBS				
	Gro-Low Fragrant Sumac	Rhus aromatica 'Gro-Low'	12"-24"	9
	Knockout Rose Bush	Rosa 'Radtke'	12"-24"	15
	Little Lime Hydrangea	Hydrangea paniculata 'Jane'	12"-24"	9
	Show Off Sugar Baby	Forsythia 'Nimbus'	12"-24"	41
EVERGREEN SHRUBS				
	Taunton Yew	Tauntonii	24"	51
PERENNIALS				
	Karl Foerster Feather Reedgrass	Calamagrostis x acutiflora 'Karl Foerster'	24"	26
	Landscaper to provide a variety of Grass species for diversity and disease resistance		1 gal pot	67
	Daylilies 'Stella de Oro'	Hemerocallis 'Stella de Oro'	1 gal pot	67
	Landscaper to provide a variety of Daylily species for diversity and disease resistance			

NOTE: LANDSCAPE CONTRACTOR SHALL REVIEW  
PROPOSED PLANTINGS WITH OWNER/TENANT PRIOR  
TO INSTALLATION. PROVIDE ALTERNATE PLANTINGS OR  
SUBSTITUTIONS AS DIRECTED BY THE OWNER/TENANT.

IRRIGATION NOTE: IRRIGATION SYSTEM SHALL BE  
PROVIDED ONSITE IN ACCORDANCE WITH  
OWNER/TENANT'S SPECIFIC IRRIGATION REQUIREMENTS.  
DESIGN-BUILD LANDSCAPE IRRIGATION CONTRACTOR  
SHALL BE RESPONSIBLE FOR FINAL DESIGN AND  
LAYOUT OF THE IRRIGATION SYSTEM.



TREE PLANTING DETAIL  
NO SCALE



SHRUB PLANTING DETAIL  
NO SCALE



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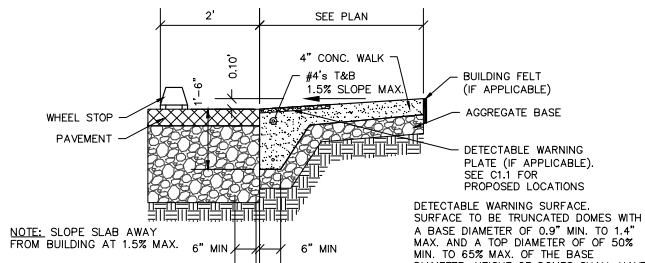
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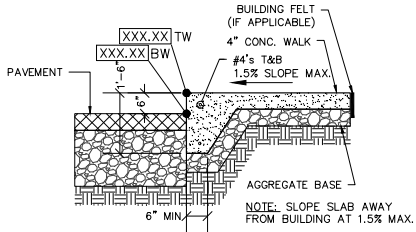
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NOT FOR CONSTRUCTION

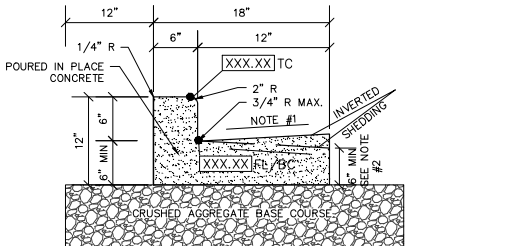




FLUSH WALK DETAIL  
NO SCALE

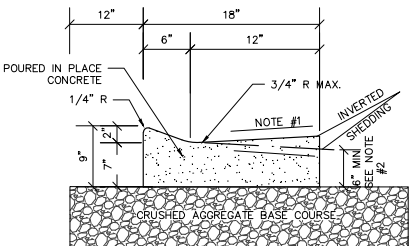


RAISED WALK DETAIL  
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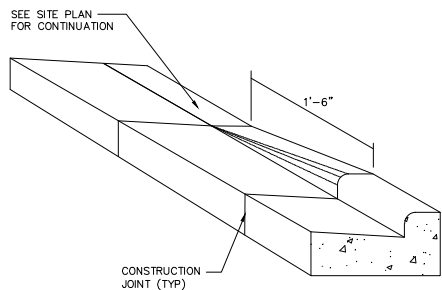
- NOTE:
- USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
  - THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
  - SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

18" CONCRETE CURB & GUTTER DETAIL  
NO SCALE

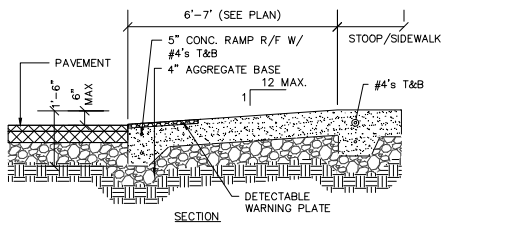


- NOTE:
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  - THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
  - SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

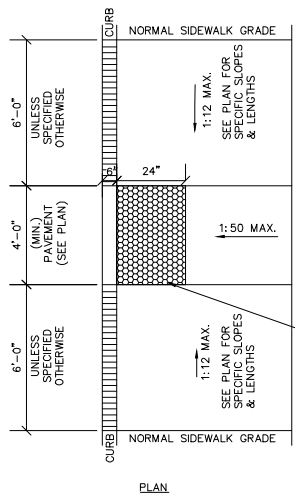
18" MOUNTABLE CURB & GUTTER DETAIL  
NO SCALE



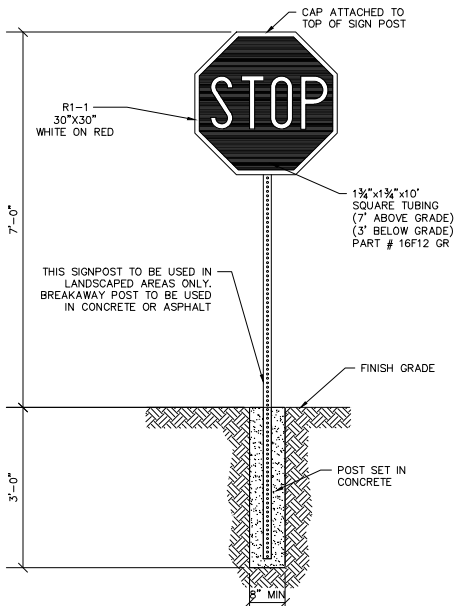
CURB TAPER DETAIL  
NO SCALE



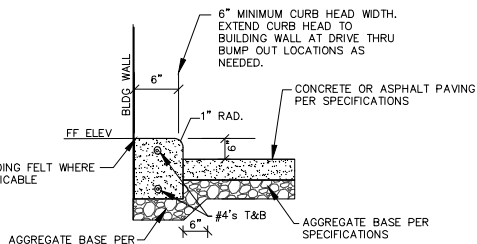
CURB RAMP DETAIL  
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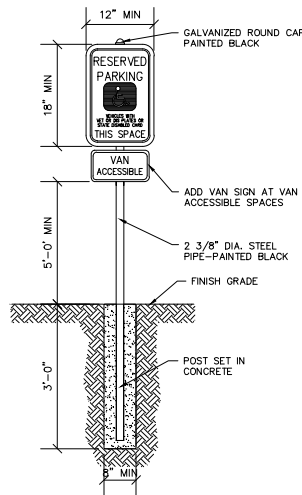
ADA SIDEWALK RAMP DETAIL  
NO SCALE



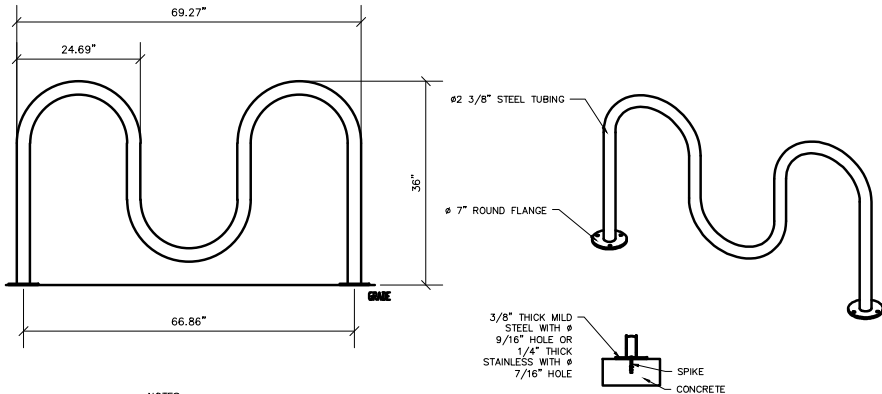
STOP SIGN WITH CONCRETE BASE DETAIL  
NO SCALE



DRIVE THRU VERTICAL CURB DETAIL  
NO SCALE

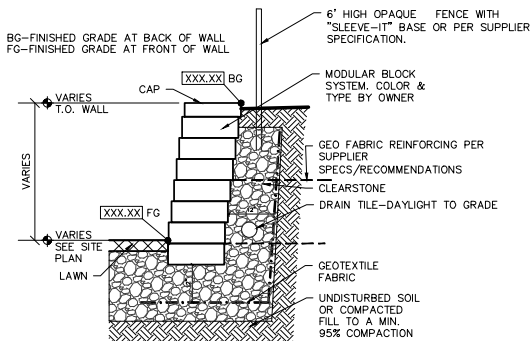


HANDICAP SIGNAGE WITH CONCRETE BASE DETAIL  
NO SCALE



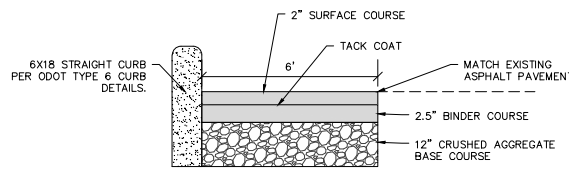
- NOTES:
- INSTALL BIKE RACKS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
  - OWNER SHALL SELECT COLOR & FINISH.
  - SEE SITE PLAN FOR APPROX. LOCATION. COORDINATE W/ OWNER PRIOR TO CONSTRUCTION.
  - MANUFACTURED BY MADRAX; PRODUCT: CS200-5-IG(SF); DESCRIPTION: CAPITAL SQUARE BIKE RAKE 5 BIKE

5 BIKE RACK DETAIL-WAVE TYPE  
NO SCALE

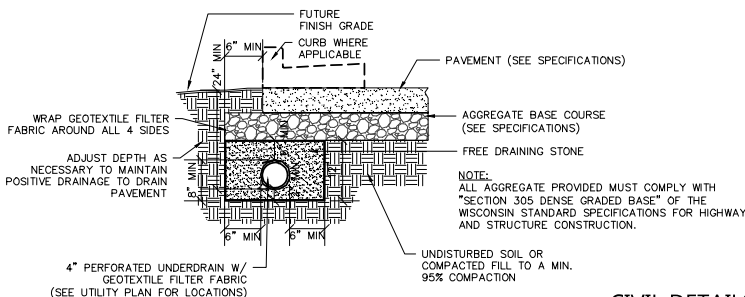


- NOTE:
- THIS DETAIL IS INFORMATIONAL ONLY AND IS NOT FOR CONSTRUCTION PURPOSES. THE WALL MANUFACTURER/SUPPLIER IS RESPONSIBLE FOR FINAL DESIGN AND CONSTRUCTION DETAILS. WALL DESIGNER SHALL ACCOUNT FOR SITE IMPROVEMENTS LOCATED NEAR/ADJACENT TO WALL INCLUDING FENCE, LIGHT POLES, UTILITIES, ETC (SEE PLAN FOR LOCATIONS). CONTRACTOR TO COORDINATE PROVIDING STAMPED PLANS TO AHJ AS REQUIRED.

RETAINING WALL DETAIL  
NO SCALE



ASPHALT PAVEMENT SECTION REPAIR DETAIL (LINCOLN WAY E)  
NO SCALE



PAVING WITH UNDERDRAIN DETAIL  
NO SCALE

CIVIL DETAILS

**EXCEL**

Always a Better Plan

100 Camelot Drive  
Ford du Lac, WI 54935  
920-926-9900  
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:

**STARBUCKS & PANDA EXPRESS**

LINCOLN WAY E • MASSILLON, OH 44646

PROFESSIONAL SEAL

PRELIMINARY DATES

JAN. 20, 2023  
MAR. 24, 2023

JOB NUMBER

2178020

SHEET NUMBER

**C2.0**

NOT FOR CONSTRUCTION

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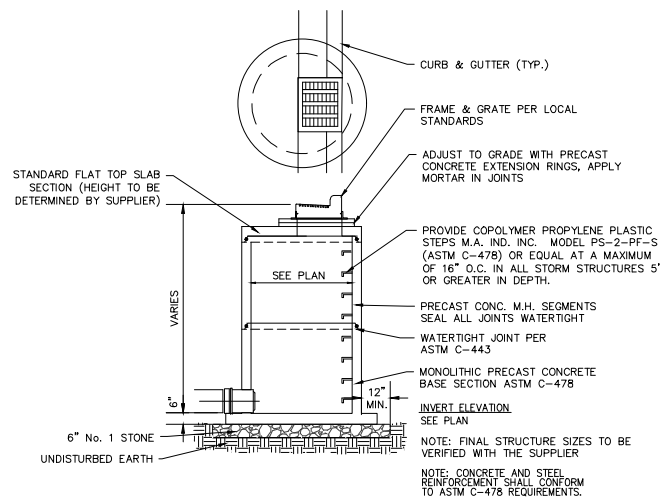
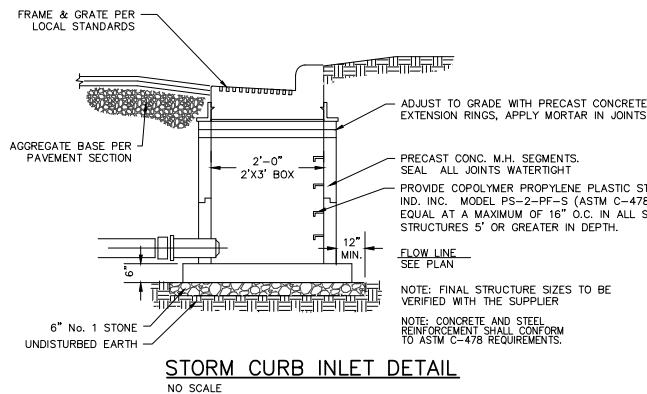
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2178020

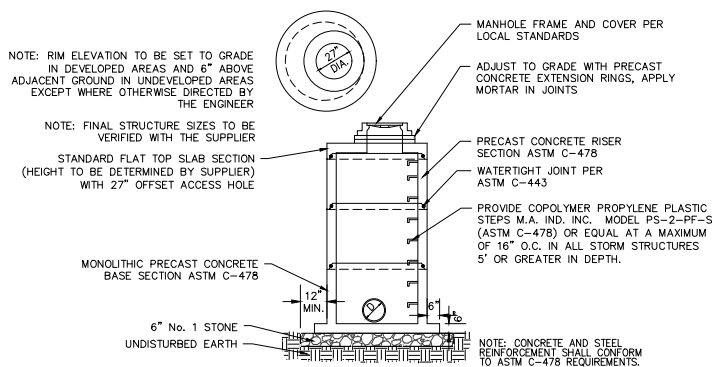
**SHEET NUMBER**

## C2.1

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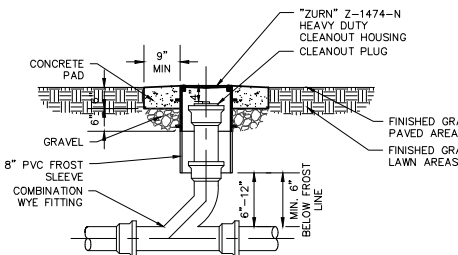


STORM CURB INLET W/ ROUND STRUCTURE DETAIL  
NO SCALE

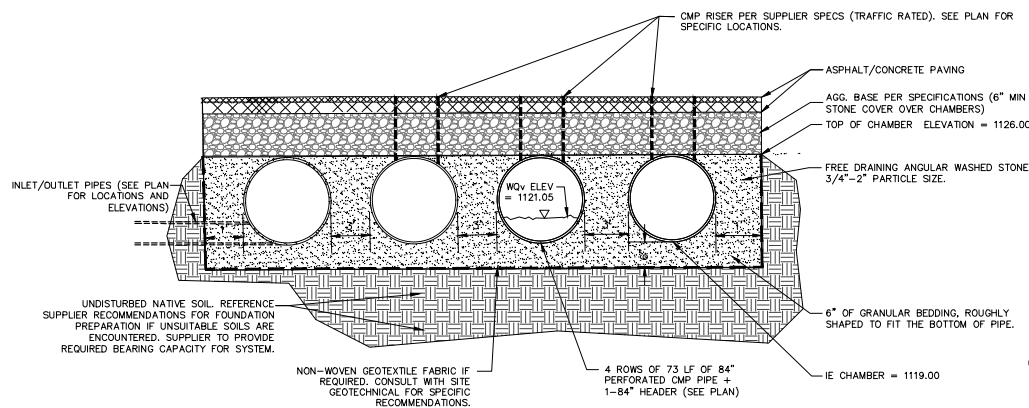


# STORM MANHOLE DETAIL

NO SCALE



CLEANOUT TO GRADE DETAIL  
NO SCALE



MINIMUM STORAGE REQUIREMENTS:

MINIMUM CHAMBER STORAGE = 12,662  
MINIMUM STONE STORAGE = 4,530 CF  
MINIMUM TOTAL STORAGE = 17,192 CF

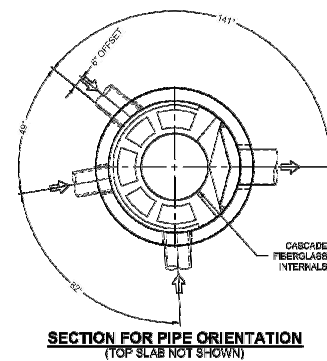
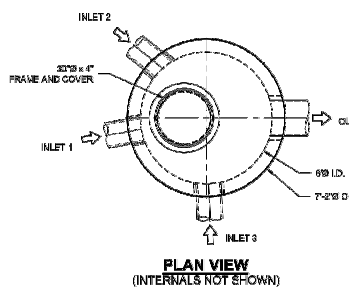
#### NOTES:

THIS DETAIL IS FOR REFERENCE ONLY. FINAL DESIGN & SPECIFICATIONS SHALL BE PROVIDED BY THE PIPE SUPPLIER/MANUFACTURER.

CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EARTH COVER OVER CMP SYSTEM THROUGHOUT CONSTRUCTION UNTIL FINAL PAVING IS COMPLETED. FOLLOW SUPPLIER GUIDELINES.

SUPPLIER REPRESENTATIVE SHALL BE ONSITE FOR INSPECTION DURING INSTALLATION.

### UNDERGROUND STORAGE CHAMBERS DETAIL



**SECTION FOR PIPE ORIENTATION**  
(TOP SLAB NOT SHOWN)

**MATERIAL LIST (PROVIDED BY CONTECH)**

COUNT	DESCRIPTION	INSTALLED BY
1	CS-8 FIBERGLASS CYLINDER INSERT, STD.	CONTECH
5	CS-8 ALUMINUM INSTALLATION BRACKET	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	80"Ø x 4" FRAME AND COVER, ELM1800483, OR EQUIV.	CONTRACTOR

### SITE DESIGN DATA

WATER QUALITY FLOW RATE	3.27 CFS
PEAK FLOW RATE	12.02 CFS
RETURN PERIOD OF PEAK FLOW	100 YRS

GENERAL NOTES:

1. CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE. SEE  
FOR PORE FILLING DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS. PLEASE CONTACT  
YOUR CONTRACT REPRESENTATIVE FOR NEAR CONTACTS.  
2. CASING SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND  
INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONSIDER STRUCTURE MEETS  
REQUIREMENTS OF:  
a. STRUCTURE SHALL MEET ASHITO 10-120 LADT PAVING, ASSUMING EARTH COVER OF 0'-3" AND  
BROOKFIELD 10-120 LADT PAVING, ASSUMING EARTH COVER OF 0'-3".  
b. STRUCTURE SHALL BE CONSTRUCTED TO MEET ALL REQUIREMENTS OF THE DESIGN RECORD TO  
CONTRACTUAL GROUP 10-120 LADT PAVING. CASTING SHALL BE DONE AND BE CAST WITH  
THE CONTRACTED LOG.  
3. CASING SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-475 AND  
ASHITO LOAD FACTOR DESIGN METHOD.

## INSTALLATION NOTES

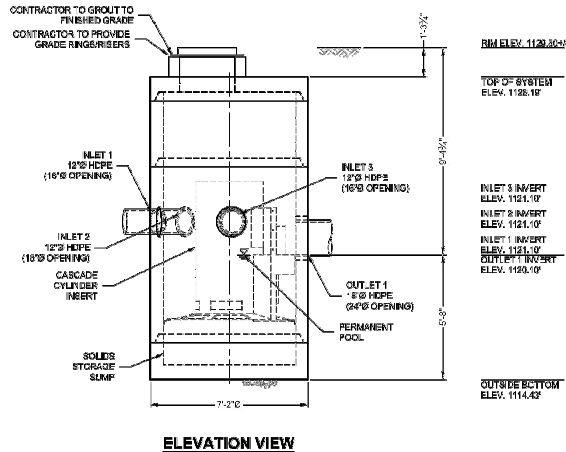
- A. ANY SIZE, BASE, BACKFILL, DEPTH, AND/OR ANTI-FLOAT ON PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OR RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- C. CONTRACTOR TO ADJ. JOINTS BETWEEN STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE TO CONFORM TO RECORD. CONTRACTOR TO MATCH ALL OPEN PIPES. JACKET PIPES INVERTS (WITH ELEVATIONS SHOWN) ALL "FIS" CEILING TO MATCH R/W OF OPENING CIRCLES.
- D. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNITS IS WATER TIGHT, HOLDING WATER TO FLOODLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

**STRUCTURE WEIGHT**  
APPROXIMATE HEAVIEST PICK = 14500 LBS.  
OF 4 PIECES  
MAXIMUM FOOTCUBIT = 3.043

MAXIMUM FOOTPRINT = 7.29

# CONTECH PROPOSAL

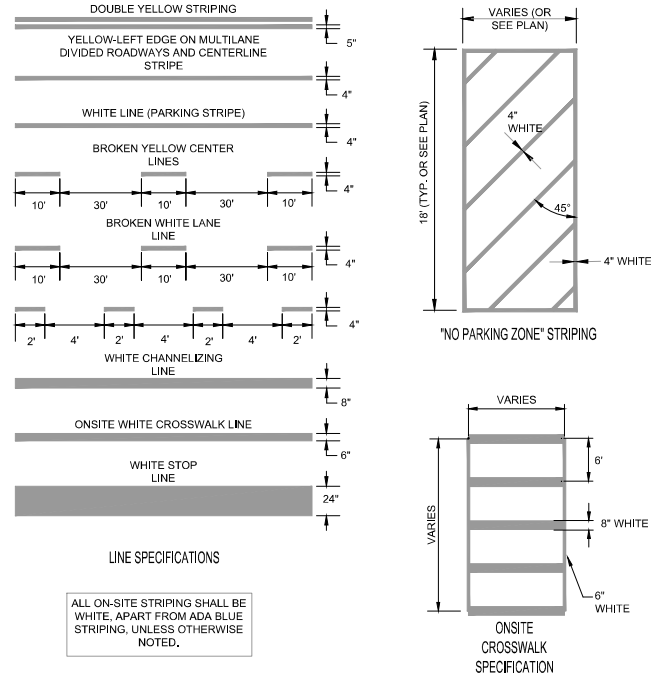
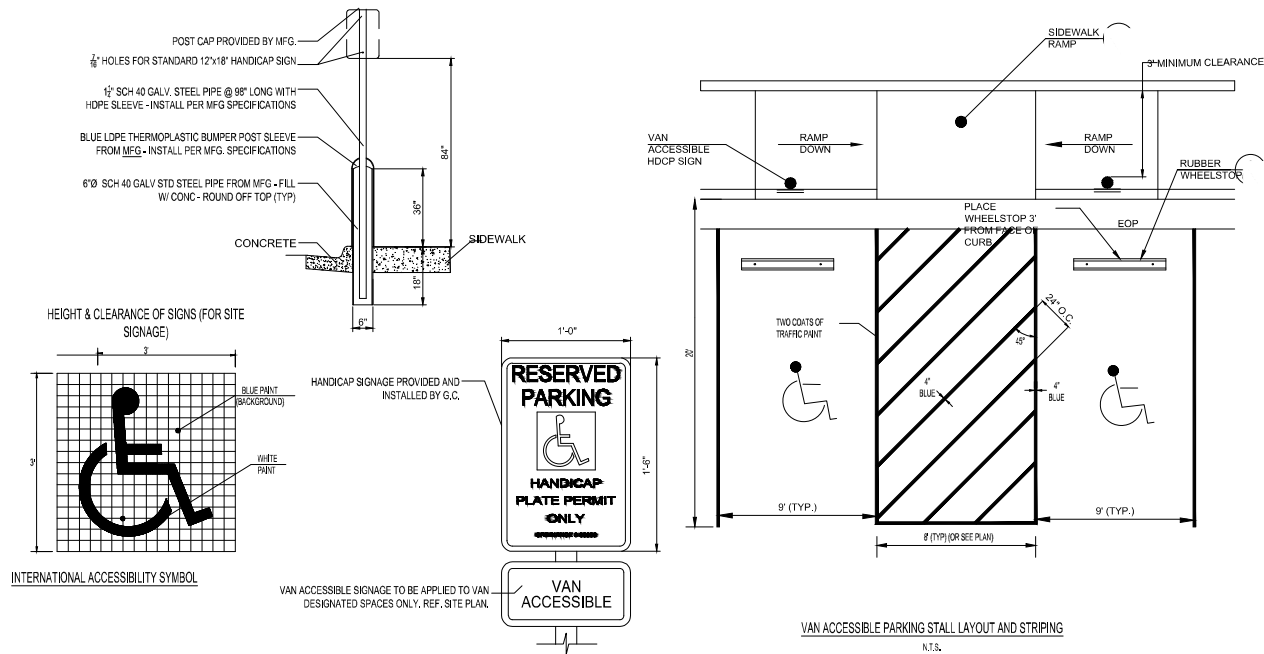
STORM MANHOLE #1 DETAIL  
NO SCALE



**ELEVATION VIEW**

## CIVIL DETAILS





**SPECIFICATION NOTE:**  
SEE SHEET C0.1 FOR PLAN  
SPECIFICATIONS AND REQUIREMENTS



## PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:  
**STARBUCKS & PANDA EXPRESS**  
LINCOLN WAY E • MASSILLON, OH 44646

PROFESSIONAL SEAL

## PRELIMINARY DATES

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MAR. 24, 2023

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2178020

SHEET NUMBER

## C2.2

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PANDA EXPRESS GENERAL CONSTRUCTION NOTES:

CONTRACTOR SHALL COORDINATE FINAL LOCATION WITH SIGN COMPANY AND PANDA EXPRESS PM FOR FINAL LOCATION OF DRIVE THRU ELEMENTS (MENU BOARD, ORDER CANOPY, CLEARANCE BAR, AND DIRECTIONAL SIGNAGE) PRIOR TO INSTALLATION. CONTRACTOR SHALL ENSURE THAT PROPOSED UTILITIES, INCLUDING SITE LIGHTING CONDUIT ARE NOT INSTALLED SO THAT THEY WOULD CONFLICT WITH THE PLACEMENT OF THE DRIVE THRU ELEMENTS AND FOOTINGS.

CONTRACTOR SHALL PROVIDE CONCRETE PAVING BETWEEN FACE OF BUILDING AND BACK OF CURB ALONG DRIVE-THRU LANE AND ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING.

CONTRACTOR SHALL COORDINATE AND ADJUST LOCATION OF LOOP DETECTORS TO AVOID UTILITY CONFLICTS PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL INSTALL GENERAL UTILITY CONDUITS TO PLANTERS AROUND BUILDING AND PATIO. SEE ARCHITECTURAL/MEP PLANS FOR CONTINUATION.

CONTRACTOR SHALL ENSURE 100% COVERAGE OF ALL LANDSCAPED AREAS WITHIN LIMITS OF WORK, INCLUDING POTENTIAL OFFSITE AREAS. COVERAGE SHALL INCLUDE BOTH LANDSCAPING AND IRRIGATION.

CONTRACTOR SHALL PROTECT ALL ITEMS OUTSIDE LIMITS OF CONSTRUCTION UNLESS OTHERWISE NOTED IN THE CONSTRUCTION PLANS OR SPECIFICATIONS.

CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES (LOCATIONS AND ELEVATIONS) PRIOR TO STARTING CONSTRUCTION AND ALERT ENGINEER TO ANY DISCREPANCIES IMMEDIATELY.

THE GEOTECHNICAL INVESTIGATION AND ANY SUBSEQUENT ADDENDUMS IS CONSIDERED PART OF THE CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE REPORT'S RECOMMENDATIONS AND FINDINGS WITH THE OWNER, ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION. IMPLEMENTATION OF THE REPORT'S RECOMMENDATIONS MAY REQUIRE THE CONTRACTOR TO PERFORM ADDITIONAL WORK NOT SHOWN ON THE CIVIL PLANS INCLUDING BUT NOT LIMITED TO EXCAVATION, REMEDIATION, DEWATERING, COMPACTION ETC.

THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL LOCAL, STATE, AND FEDERAL CERTIFICATION AND LICENSING REQUIREMENTS FOR CONSTRUCTION, INCLUDING BUT NOT LIMITED TO: LAND DISTURBANCE PERMITS, BUILDING PERMITS, DEMOLITION PERMITS, NPDES PERMITS, DEWATERING PERMITS, ETC.

## PANDA EXPRESS IRRIGATION SPECIFICATIONS

## GENERAL

A. GER

5. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND OPERATIONAL BY THE TIME OF FINAL PAYMENT OF THE FINAL INVOICE FOR THE IRRIGATION CONTRACT. THE IRRIGATION CONTRACTOR SHALL OPERATE ON POTABLE WATER, AND THE SYSTEM SHALL HAVE A REDUCED-PRESSURE BACKFLOW PREVENTION DEVICE INSTALLED TO PREVENT CONTAMINATION OF THE POTABLE SUPPLY. THE BACKFLOW DEVICE SHALL BE ENCLOSED IN A VANDAL-RESISTANT ENCLOSURE. THE ENTIRE PLANTING SHALL BE IRRIGATED BY THE IRRIGATION SYSTEM. THE SPRAY HEADS SHALL BE IRRIGATED WITH SPRAY OR ROTOR HEADS AT 100% HEAD-TO-HEAD COVERAGE. ALL PLANTS SHARING SIMILAR HYDROZONE CHARACTERISTICS (WETNESS, SUN, EXPOSURE, ETC.) SHALL BE PLACED ON THE SAME HYDROZONE. THE NECESSARY WATER REQUIREMENTS SPECIFIC TO THAT HYDROZONE. THE PLANTING PLAN SHALL BE THE BASIS OF IRRIGATION DESIGN, AND THE IRRIGATION CONTRACTOR SHALL OBTAIN AND THOROUGHLY REVIEW A COPY OF THE PLANTING PLAN PRIOR TO SUBMITTING THE IRRIGATION DESIGN. THE IRRIGATION DESIGN SHALL BE APPROVED BY THE OWNER. THE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED, TO THE MAXIMUM EXTENT POSSIBLE, TO CONSERVE WATER. THE IRRIGATION SYSTEM SHALL BE DESIGNED TO INCORPORATE THE LATEST TECHNOLOGY ON ROTOR AND SPRAY HEADS, RAIN SENSORS, MULTI-PROGRAM COMPUTERIZED IRRIGATION CONTROLLERS FEATURING SENSORY INPUT CAPABILITIES.
6. THE IRRIGATION DESIGN SHALL ACHIEVE A DISTRIBUTION UNIFORMITY OF 87.0% OR BETTER.

1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES, FEES, AND ANY OTHER ITEMS THAT ARE NECESSARY FOR INSTALLATION, INSPECTION, TESTING, AND OPERATION OF ALL WORK SPECIFIED HEREIN AND/OR SHOWN ON THE IRRIGATION PLANS, NOTES, AND DETAILS.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE TEXAS IRRIGATION ACT, BUILDING CODE, ELECTRICAL CODE, AND ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS. IN CASE OF CONFLICT BETWEEN THESE PLANS AND ANY LOCAL AND/OR STATE AUTHORITY, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.
3. THE INTENT OF THE IRRIGATION SYSTEM IS TO PROVIDE 100% COVERAGE OF ALL LANDSCAPE AREAS. THE IRRIGATION PLAN IS GENERALLY DIAGRAMMATIC. COORDINATE IRRIGATION INSTALLATION WITH UTILITY INSTALLATIONS, ACTUAL LOCATION OF CONTRACTOR, BACKFLOW DEVICE, SPRING, VALVES, SPRAY HEADS, IRRIGATION AND NON IRRIGATED EQUIPMENT MAY NEED TO BE ADJUSTED BASED ON ACTUAL SITE CONDITIONS.
- C. QUALIFICATIONS OF CONTRACTOR
1. AS SHOWN ON THESE PLANS, SHALL BE PERFORMED BY A SINGLE IRRIGATION CONTRACTING FIRM SPECIALIZING IN IRRIGATION SYSTEMS. SEE THE IRRIGATION PLAN FOR SPECIFIC EQUIPMENT AND SYSTEM LAYOUT.
2. THE IRRIGATION CONTRACTOR MUST HAVE ON ITS STAFF A TEXAS LICENSED IRRIGATOR, AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY. A LICENSED IRRIGATOR OR LICENSED IRRIGATION INSTALLER SHALL BE PRESENT AT THE PROJECT SITE AT ALL TIMES AS WORK IS IN PROGRESS. THE OWNER MAY DISQUALIFY ANY IRRIGATOR OR IRRIGATION INSTALLER WHO IS NOT PRESENT AT THE PROJECT SITE AND SUPERVISING ALL IRRIGATION WORK.
3. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.

## PRODUCTS

A. ALL MATERIALS SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND SHALL BE THE BEST OF THEIR CLASS AND KIND. ALL MATERIALS SHALL HAVE A MINIMUM GUARANTEE OF ONE YEAR AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP. ALL MATERIALS SHALL BE OF THE FOLLOWING BRANDS: BARNETT, B&B, METALTEK. ANY OTHER MANUFACTURERS MAY BE PROPOSED TO THE OWNER, AS MAY BE APPROPRIATE.

B. THE BACKFLOW PREVENTION DEVICE SHALL BE REDUCED-PRESSURE TYPE, SIZED TO MEET IRRIGATION DEMAND AND BE UNDER PRESSURE WHEN THE IRRIGATION SYSTEM IS IN OPERATION. IT SHALL BE INSTALLED IN CONFORMANCE WITH CONSTRUCTION DETAILS AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.

C. PIPING

- 1. PRESSURE SUPPLY LINES (DOWNSTREAM OF THE POINT-OF-CONNECTION):
  - a. SCHEDULE 40 PVC FOR ALL PIPE 1 1/2" OR LESS
  - b. CLASS 315 PVC FOR ALL PIPE 2" TO 2 1/2"
  - c. CLASS 200 PVC, GASKETED, FOR ALL PIPE 3" AND LARGER
- 2. NON-PRESSURE LATERAL LINES (DOWNSTREAM FROM VALVES): CLASS 200 PVC
- 3. SLEEVES: SCHEDULE 40 PVC
- 4. FITTINGS: SCH. 40 PVC, EXCEPT AS NOTED OTHERWISE.

D. VALVES AND DRIP VALVE ASSEMBLIES: EACH VALVE SHALL BEAR A PRE-FABRICATED, NUMBERED WATERPROOF TAG BEARING A NAME NUMBER CORRESPONDING TO ITS VALVE SEQUENCE OF OPERATION ON THE CONTROLLER.

- 1. VALVES FOR SPRAY AND ROTOR CIRCUITS SHALL BE COMMERCIAL-GRADE, GLOBE-TYPE, NORMALLY OPEN, FULL-PORT, 1 1/2" NPT.
- 2. VALVES SHALL HAVE A ONE-PIECE SOLENOID DESIGN AND FLOW CONTROL HANDLE.

E. QUICK COUPLERS: 2" - TWO-PIECE BODY, WITH LATCHING COVER.

F. BALL VALVES

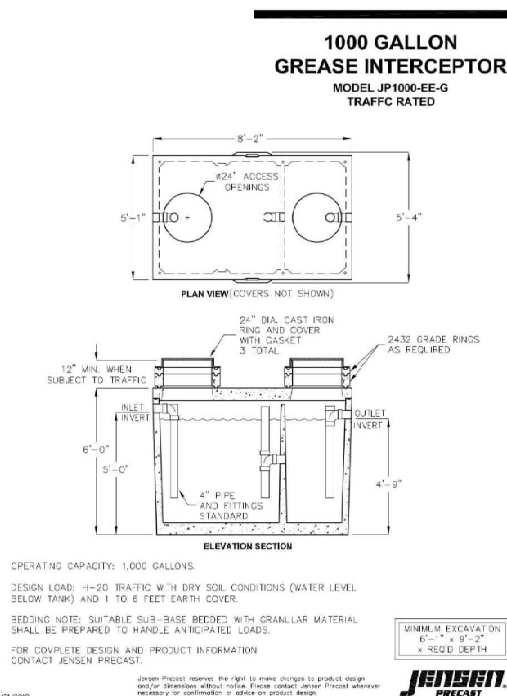
- 1. BRASS BALL VALVES SHALL BE INSTALLED WHEREVER PRESSURIZED MAINLINE CROSSES VEHICULAR AREAS AND SHALL BE INSTALLED ON THE UPSTREAM SIDE OF THE MAINLINE.
- 2. PVC BALL VALVES SHALL BE INSTALLED AT THE ENDS OR DRIP RUNS, FOR FLUSHING DRIP LINES.

G. ALL BALL VALVES SHALL BE FULL-PORT, LINE SIZE, AND INSTALLED IN THEIR OWN 9" ROUND VALVE BOXES. ALL VALVE BOXES SHALL BE 12" O.D. AND 12" TALL. ALL DOWN-TYPE VALVES FURNISHED WITH LIDS AND BOLTS SHALL BE OF A SIZE TO CONTAIN THE ENTIRE VALVE AND/OR VALVE ASSEMBLY. THE VALVE BOX LID SHALL HAVE THE VALVE STATION NUMBER HEAT-BRANDED INTO THE LID WITH 2" HIGH LETTERS. ONLY ONE VALVE SHALL BE INSTALLED PER VALVE BOX.

H. FIXED SPRAY HEADS AND ROTORS: PLASTIC BODY POP-UP, WITH A REMOVABLE PLASTIC SPRAY NOZZLE. NOZZLES SHALL BE HIGH-EFFICIENCY.

I. INTERMITTENT DRIP TUBING: TUBING, WITH INTEGRAL EMITTERS WELDED TO THE INSIDE WALL OF THE TUBING AS AN INTEGRAL PART OF THE TUBING ASSEMBLY

- 1. IN GENERAL, THE FOLLOWING EMITTER FLOW RATES AND SPACING SHALL BE USED:
  - a. CLAY AND CLAY LOAM SOILS: 0.6 GPH, EMITTERS SPACED AT 12" O.C., PARALLEL TUBING RUNS SPACED AT 18" O.C.
  - b. MEDIUM-TEXTURE LOAM SOILS: 0.9 GPH, EMITTERS SPACED AT 12" O.C., PARALLEL TUBING RUNS SPACED AT 18" O.C.
  - c. SANDY AND SANDY LOAM SOILS: 0.9 GPH, EMITTERS SPACED AT 12" O.C., PARALLEL TUBING RUNS SPACED AT 12" O.C.
- 2. CONTRACTOR SHALL GUARANTEE A MINIMUM OF TWO EMITTERS PER #1 OR #5 CONTAINER PLANT.



1000 GAL GREASE TRAP

NO SCALE

## CHAPTER 7 Soil Stabilization 19

## CHAPTER 6 Self-tuning Control 5

## 20 CHAPTER 7 Soil Section

## 34 CHAPTER 6 Saltwater Corrosion

## CHAPTER 5. Temperature: Humidity Control

## 50 CHAPTER 6 Sediment Corrosion



PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:  
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LINCOLN WAY E • MASSILLON, OH 44646

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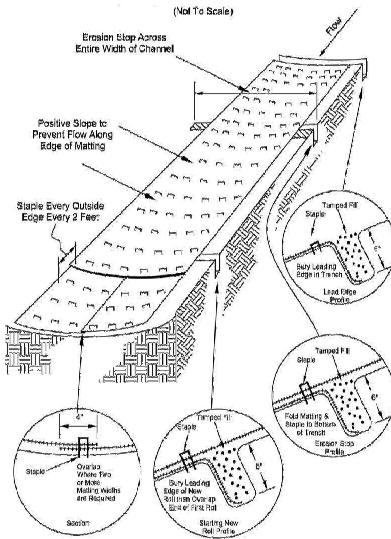
JOB NUMBER

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SHEET NUMBER

**C2.4**

Specifications  
for  
**Temporary Rolled Erosion Control Product**



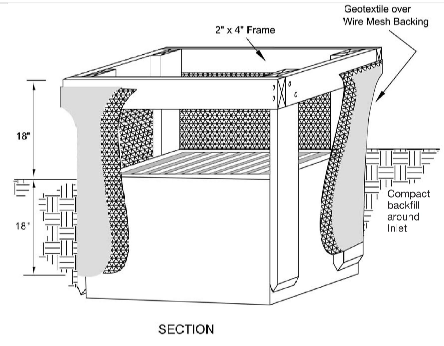
54 CHAPTER 7 Soil Stabilization

Specifications  
for  
**Temporary Rolled Erosion Control Product**

- Channel/Slope Soil Preparation Grade and compact area of installation, preparing seedbed by loosening 2'-3" of topsoil above final grade. Incorporate amendments such as lime and fertilizer into soil. Remove all rocks, stumps, vegetation or other debris so that installed RECP will have direct contact with the soil surface.
- Channel/Slope Seeding Apply seed to soil surface prior to installation. All check slots, anchor trenches, and other disturbed areas must be reseeded. Refer to the Permanent Seeding specification for seeding recommendations.
- Staple Installation**
  - Excavate for and install anchor trenches (12"x6") in intermittent erosion check slots (6"x6") may be required based on slope length. Excavate top anchor trench 2' x 3' over crest of the slope.
  - If intermittent erosion check slots are required, install RECP in 6"x18" slot at a maximum of 30' centers or the mid point of the slope. RECP should be stapled into trench on 12' centers.
  - Install RECP in top anchor trench, anchor on 12' spacing, backfill and compact soil.
  - Unroll RECP down slope with adjacent rolls overlapped a minimum of 3". Anchor the crest every 10'. Lay the RECP loose to maintain direct soil contact, do not pull taut.
  - Overlap roll ends a minimum of 12" with upstream RECP or top for a slight effect. Begin all new rolls in an erosion check slot if required, double anchor across roll every 12'.
  - Install RECP in bottom anchor trench (12"x6"), anchor every 12'. Place all other staples throughout slope at 1 to 2 ft per square yard dependent on slope. Refer to manufacturer's anchor guide.

CHAPTER 7 Soil Stabilization 55

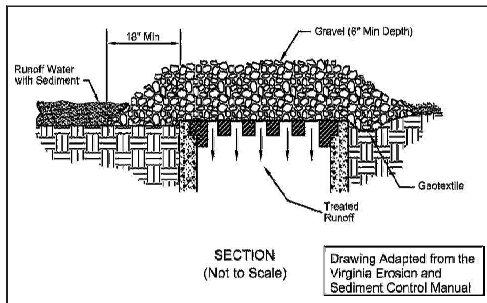
Specifications  
for  
**Geotextile Inlet Protection**



- Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.
- The earth around the inlet shall be excavated completely to a depth of least 18 inches.
- The wooden frame shall be constructed of 2-inch by 4-inch construction grade lumber. The 2-inch by 4-inch posts shall be driven one (1) ft. into the ground at four corners of the inlet and the top portion of 2-inch by 4-inch frame assembled using the overlap joint shown. The top of the frame shall be at least 6 inches below adjacent grade. If gravel underlay will pass a safety hazard to traffic.
- 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.
- Geotextile material 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 inches below the inlet notch elevation. The geotextile shall overlap across one side of the inlet as the ends of the cloth are not fastened to the same post.
- Backfill shall be placed around the inlet in compacted 6-inch layers until the earth is over with notch elevation on ends and top elevation on sides.
- A compacted earth dike or check dam shall be constructed in the ditch. Use before the inlet if the inlet is not in a depression. The top of the dike shall be at least 6 inches higher than the top of the frame.

CHAPTER 8 Sediment Controls 59

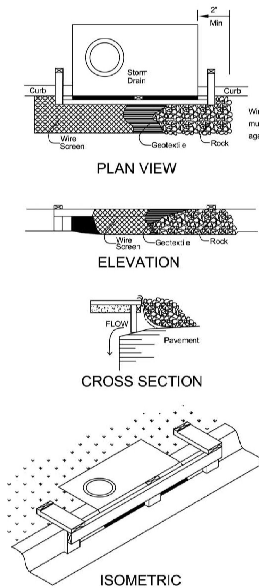
Specifications  
for  
**Geotextile-Stone Inlet Protection**



- Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.
- Geotextile and/or wire mesh material shall be placed over the top of the stone and extend approximately six (6) inches of 2-inch or smaller clean aggregate placed on top. Extra support for geotextile is provided by placing hardware cloth or wire mesh across the inlet crease. The wire should be no larger than 1/4" mesh and should extend an extra 12 inches across the top and sides of the inlet crease.
- Maintenance must be performed regularly, especially after storm events. When clogging of the stone or geotextile occurs, the material must be removed and replaced.

40 CHAPTER 8 Sediment Controls

Specifications  
for  
**Geotextile - Stone Inlet Protection for Curb Inlets**



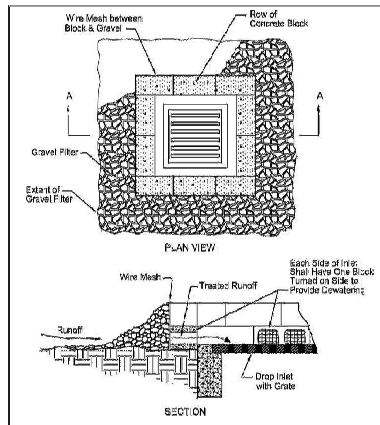
CHAPTER 8 Sediment Controls 41

Specifications  
for  
**Geotextile-Stone Inlet Protection for Curb Inlets**

- Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.
- Construct a wooden frame of 2-by-4-in. construction-grade lumber. The end supports shall be a minimum of 1 ft. beyond both ends of the throat opening. The anchors shall be nailed to 2-by-4-in. wooden crossers on the opposite side of the curb.
- The wire mesh shall be of sufficient strength to support fabric and stone. It shall be a continuous piece with a minimum width of 30 in. and 4 ft. longer than the throat length of the inlet, 2 ft. on each side.
- Geotextile cloth shall have an equivalent opening size (60% of 20-40 sieve and be resistant to sunlight. It shall be at least the same size as the wire mesh.
- The wire mesh and geotextile cloth shall be formed to the concrete gutter and against the face of the curb on both sides of the inlet and securely fastened to the 2-by-4-in. frame.
- Two-inch stone shall be placed over the wire mesh and geotextile in such a manner as to prevent water from entering the inlet under or around the geotextile cloth.
- This type of protection must be inspected frequently and the stone and/or geotextile replaced when clogged with sediment.

42 CHAPTER 8 Sediment Controls

Specifications  
for  
**Block and Gravel Drop Inlet Filter**



- Place 4-inch by 8-inch by 16-inch concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet with the ends of adjacent blocks abutting. The height of the barrier can be varied, depending upon the design needs, by stacking combinations of two same size blocks. The barrier of blocks should be at least 16 inches high but no greater than 24 inches high.
- Wire mesh should be placed over the outside vertical face (backing) of the concrete blocks to prevent stone from being washed through the block cores. Hardware cloth or comparable wire mesh with 1/2-inch openings should be used.
- Two-inch stone should be placed against the wire to the top of the block barrier, as shown below.
- If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, pull stone away from the blocks, clean and/or replace.

CHAPTER 8 Sediment Controls 43

PROPOSED DEVELOPMENT FOR:

**STARBUCKS & PANDA EXPRESS**

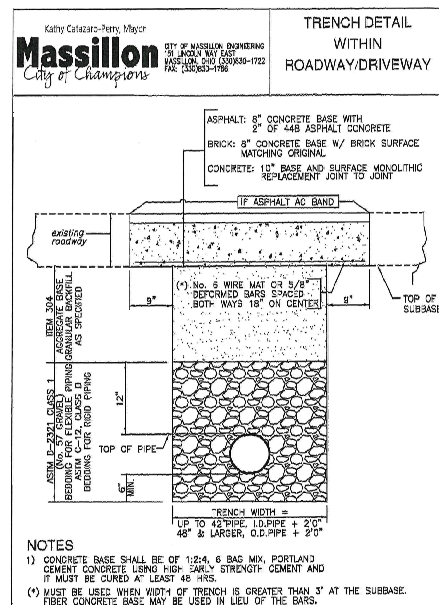
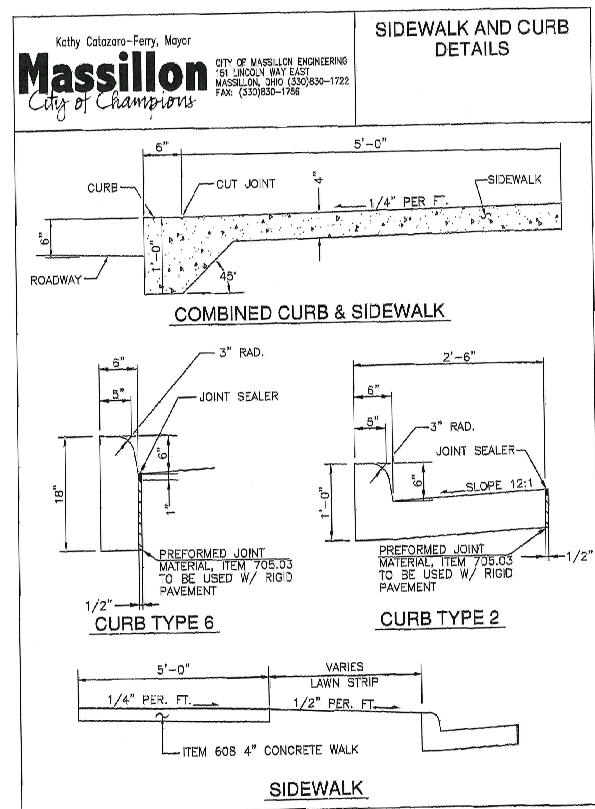
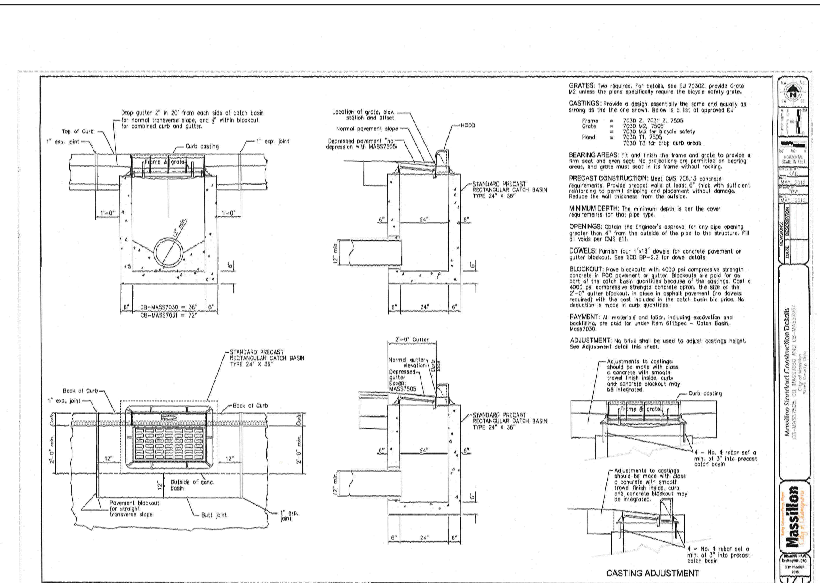
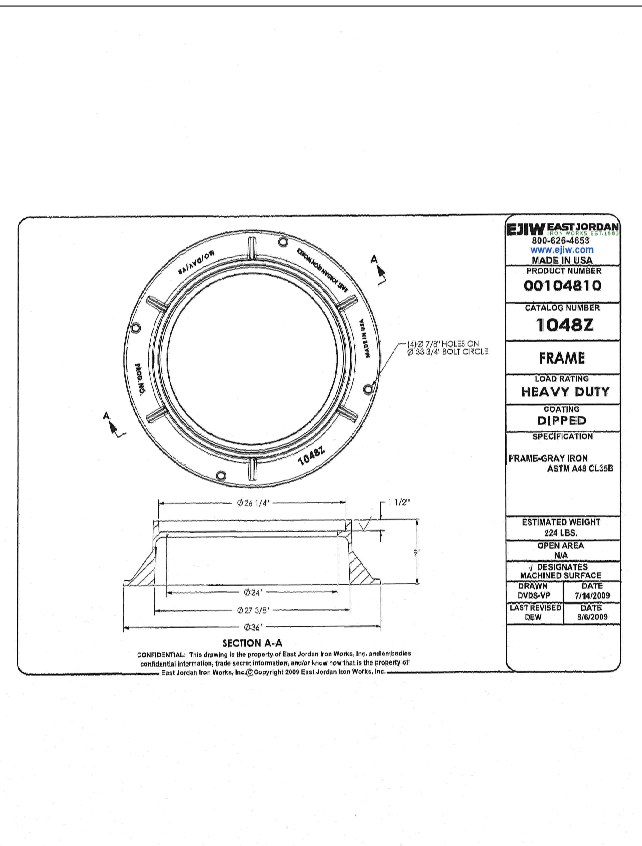
LINCOLN WAY E • MASSILLON, OH 44646

PRELIMINARY DATES	
JAN. 20, 2023	
MAR. 24, 2023	

**NOT FOR CONSTRUCTION**

2178020

## C2.5



CITY OF MASSILLON DETAILS



PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:  
**STARBUCKS & PANDA EXPRESS**  
LINCOLN WAY E • MASSILLON, OH 44646

PROFESSIONAL SEAL

PRELIMINARY DATES

JAN. 20, 2023  
MAR. 24, 2023

JOB NUMBER

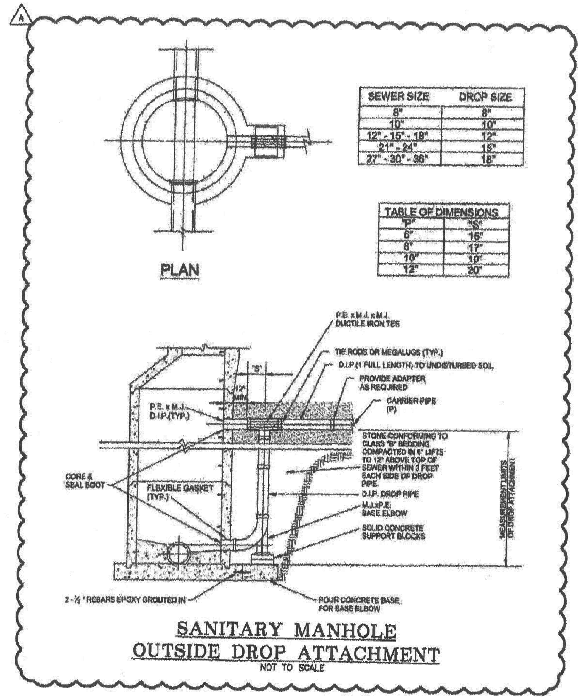
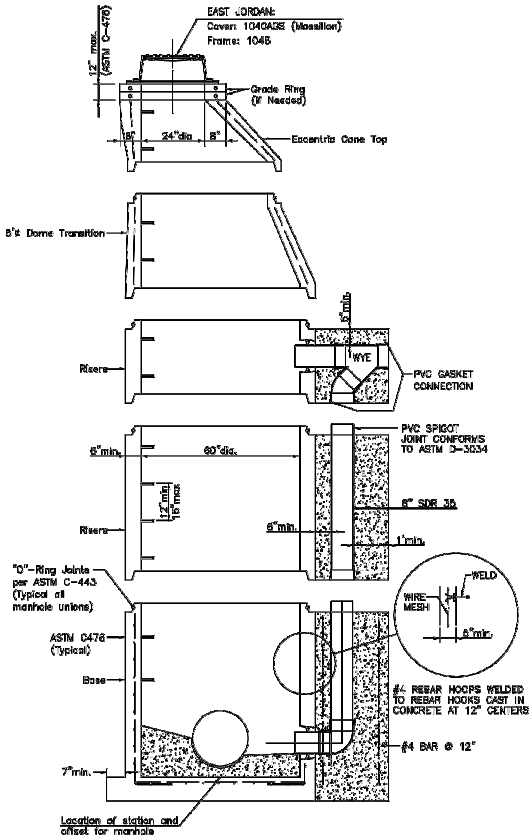
2178020

SHEET NUMBER

**C2.6**


Kathy Catazaro-Perry, Mayor  
**Massillon**  
*City of Champions*  
CITY OF MASSILLON ENGINEERING  
151 LINCOLN WAY EAST  
MASSILLON, OHIO (330)830-1722  
FAX: (330)830-1788

STANDARD  
DROP MANHOLE





24th Street S.E. 60'  
(A Public Right-of-Way)





**D-Series Size 1  
LED Area Luminaire**



**Specifications**

EPH: 0.02 ft  
(0.06 m)

Length: 32.71"  
(831 mm)

Width: 14.26"  
(362 mm)

Height H1: 7.88"  
(200 mm)

Height H2: 2.73"  
(69 mm)

Weight: 34 lbs  
(15 kg)







Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long life luminaire.


The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA N1A2R2 PIRHN DOB80									
Ordering Information									
Order	LED	Color Temperature	Color Rendering Index	Beam Angle	Mounting	Shipped in	Shipped in	Shipped in	Shipped in
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	
DSX1 LED	P7	40K	70CRI	T3M	SPA	N1A2R2	PIRHN	DOB80	

LITHONIA LIGHTING  
COMMERCIAL OUTDOOR

Schedule									
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	L14	3	Lithonia Lighting	DSX1 LED P6 40K 80CRI T4M	D-Series Size 1 Area Luminaire P6 Performance Package 4000K CCT 80 CRI Type 4 Medium	1	19126	0.9	165.25
	L24	2	Lithonia Lighting	DSX1 LED P6 40K 80CRI T4M	D-Series Size 1 Area Luminaire P6 Performance Package 4000K CCT 80 CRI Type 4 Medium	1	19126	0.9	330.5
	WP2	1	Lithonia Lighting	WST LED P2 30K VW HVOLT	WST LED, Performance package 2, 3000 K, visual comfort wide, MVOLT	1	3276	0.9	25
	C16	16	LEDRA BRANDS	NU3-RAPH-SW-16LM-27K-90CRI-D50	NU3 Round Adjustable Pinhole Static White 500, No Accessory	1	1084	0.9	12.5
	WP3	1	GAMA SONIC	GS-101PIR-G	8W LED SOLAR SECURITY LIGHT	1	860	0.9	8
	L14H	4	Lithonia Lighting	DSX1 LED P6 40K 80CRI T4M HS	D-Series Size 1 Area Luminaire P6 Performance Package 4000K CCT 80 CRI Type 4 Medium HouseSide Shield	1	16453	0.9	165,2497

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #3	+	1.1 fc	18.5 fc	0.0 fc	N/A	N/A
PARKING LOT	X	2.1 fc	15.4 fc	0.5 fc	30.8:1	4.2:1




**CIVIL SITE PHOTOMETRIC PLAN & DETAILS**

1" = 20'

SCALE

20' 0' 20' 40'

FEET



**EXCEL**

Always a Better Plan

100 Camelot Drive  
Fond du Lac, WI 54935  
920-926-9800  
excelengineer.com

PROJECT INFORMATION

PROPOSED DEVELOPMENT FOR:  
**STARBUCKS & PANDA EXPRESS**  
LINCOLN WAY E • MASSILLON, OH 44646

PRELIMINARY DATES

JAN. 17, 2023  
JAN. 20, 2023  
MAR. 24, 2023

JOB NUMBER

2178020

SHEET NUMBER

**C3.1**

NOT FOR CONSTRUCTION

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