GENESEE COUNTY PLANNING BOARD REFERRALS
NOTICE OF FINAL ACTION

GCDP Referral ID	**T-06-ALA-08-24**
Review Date	**8/8/2024**
Municipality	**ALABAMA, T.**
Board Name	**PLANNING BOARD**
Applicant's Name	**Sweet Haven Farms/The Broadway Group, LLC**
Referral Type	**Site Plan Review**
Variance(s)	
Description:	**Site Plan Review for an Approx. 10,566 sq. ft. new commercial retail building (Dollar General).**
Location	**7174 Alleghany Rd. (NYS Rt. 77), Alabama**
Zoning District	**Commercial (C) District**

PLANNING BOARD RECOMMENDS:

APPROVAL WITH MODIFICATION(S)

EXPLANATION:

The required modifications are as follows: 1) The applicant provides documentation from the NYS Department of Environmental Conservation (DEC) as to the project's impacts on threatened and endangered species; 2) The applicant provide a pedestrian connection to Sumner Rd.; and 3) The applicant merge the remaining land with the parcels immediately north to avoid creating an additional nonconforming lot with no road frontage. With these required modifications, the proposed development should pose no significant county-wide or intercommunity impact.

Felix A. Ortiz

Director

August 8, 2024

Date

If the County Planning Board disapproved the proposal, or recommends modifications, the referring agency shall NOT act contrary to the recommendations except by a vote of a majority plus one of all the members and after the adoption of a resolution setting forth the reasons for such contrary action. Within 30 days after the final action the referring agency shall file a report of final action with the County Planning Board. An action taken form is provided for this purpose and may be obtained from the Genesee County Planning Department.

SEND OR DELIVER TO:
GENESEE COUNTY DEPARTMENT OF PLANNING
3837 West Main Street Road
Batavia, NY 14020-9404
Phone: (585) 815-7901

DEPARTMENT USE ONLY:
GCDP Referral # T-06-ALA-08-24

RECEIVED
Genesee County
Dept. of Planning
7/30/2024

* GENESEE COUNTY * PLANNING BOARD REFERRAL

Required According to:
GENERAL MUNICIPAL LAW ARTICLE 12B, SECTION 239 L, M, N
(Please answer ALL questions as fully as possible)

1. REFERRING BOARD(S) INFORMATION

Board(s) Town of Alabama Planning Board
Address 2218 Judge Road
City, State, Zip Oakfield, NY 14125
Phone (585) 948 - 9341 Ext. 2

2. APPLICANT INFORMATION

Name Sweet Haven Farms/Broadway Group
Address 216 Westside Squard
City, State, Zip Huntsville, AL 35801
Phone (256) 929 - 5874 Ext. Email

MUNICIPALITY: ☐ City ☒ Town ☐ Village of Alabama

3. TYPE OF REFERRAL: (Check all applicable items)

- ☐ Area Variance
- ☐ Use Variance
- ☐ Special Use Permit
- ☒ Site Plan Review
- ☐ Zoning Map Change
- ☐ Zoning Text Amendments
- ☐ Comprehensive Plan/Update
- ☐ Other:

Subdivision Proposal
- ☐ Preliminary
- ☐ Final

4. LOCATION OF THE REAL PROPERTY PERTAINING TO THIS REFERRAL:

A. Full Address 7174 Alleghany Road, Basom, NY 14013
B. Nearest intersecting road Sumner Rd.
C. Tax Map Parcel Number 14.-1-32.2
D. Total area of the property 3.70 acres Area of property to be disturbed 2.19 acres
E. Present zoning district(s) Commercial

5. REFERRAL CASE INFORMATION:

A. Has this referral been previously reviewed by the Genesee County Planning Board?

☒ NO ☐ YES If yes, give date and action taken

B. Special Use Permit and/or Variances refer to the following section(s) of the present zoning ordinance and/or law

C. Please describe the nature of this request Site Plan Review for retail store

6. ENCLOSURES – Please enclose copy(s) of all appropriate items in regard to this referral

- ☒ Local application
- ☒ Site plan
- ☐ Subdivision plot plans
- ☒ SEQR forms
- ☐ Zoning text/map amendments
- ☐ Location map or tax maps
- ☐ Elevation drawings
- ☐ Agricultural data statement
- ☐ New or updated comprehensive plan
- ☐ Photos
- ☐ Other:

7. CONTACT INFORMATION of the person representing the community in filling out this form (required information)

Name Carl Kumpf Title PB Chairperson Phone (585) 948 - 9341 Ext. 2
Address, City, State, Zip 2218 Judge Road, Oakfield, NY 14125 Email ckumpf21plngbrd@gmail.com

Permit # _____
Zoning Permit Fee $_____
Building Permit Fee $_____
Fee Total $_____

Town of Alabama
Genesee County, New York

Application For Zoning/Building Permit

Fill out the application with a black or blue ballpoint pen. ***Return the completed application to the Town Clerk.***
Once the application has been processed the Town Clerk will contact the applicant to inform them it is ready to be picked up and the cost of the permit. Permits must be picked up within two weeks from the date the town clerk notifies the applicant. If applicant fails to pick up the permit within the time stated the application will be returned to the Zoning/Building Officer and Voided. A new application will need to be submitted for the project. ***Permits Expire one year from the date it is issued.***

Sweet Haven Farms, LLC — **Property Owners Name (Print)**
Property Owners Signature
07/03/24 — **Date Submitted**

Property Owners Mailing Address _____

Owners Home Phone: _____ Owners Cell Phone: _____

Address of property where work will be done **if different** than mailing address 7174 Allegany

Contractors Name Broadway Construction Contractors Phone Number 256.975.3603
*Contractors MUST provide proof of Workers Compensation Insurance before starting work. ✓

Nature of work: [✓] New structure PEMB [ ] Addition to _____ [ ] Remodel _____
What is it? - is it Pre Fab or Stick built (What) (Number of rooms)
[ ] Other (explain) _____

If a NEW dwelling: No. of Stories 1 No. of Families N/A Garage - Attached N/A Unattached N/A No.Cars N/A

1. Solid Fuel Burring Units (what type) _____ Must provide MF installation manual
2. Remodeling ---------- Total Sq. Ft. _____
3. Dimensions of addition _____ Ft. BY _____ Ft. Total Sq. Ft. _____
4. Dimensions of New structure 76 Ft By 140 Ft Total Sq Ft 10,640 Sq ft
5. Pools, Spas & Hot tubs _____ _____ Ft BY _____ Ft Depth _____
   What is it? If a pool above or in-ground
6. **Size and Area of the lot** See ALTA Ft. BY _____ Ft. Total Sq. Ft. 95,396.4 Sq ft (2.19 acres)
   Width **Depth** (Lot size must be feet not Acres)
7. **Zoning District** in which property is located - [ ] Agricultural / Residential [ ] Residential [✓] Commercial [ ] Industrial
   WNY Science & Technology Advanced Manufacturing Park - [ ] TD-1 [ ] TD-2 [ ] TD-3

8. **Tax Map #** 14.1-32.2 9. **Estimated cost of project $** 474,550 Lot creation date perTable1 Row ____
   (This will be provided by ZEO)

DO NOT WRITE BELOW THIS LINE, FOR OFFICIAL USE ONLY

Does the proposed construction or use violate any Town Zoning Law, Ordinance, or Regulation? _____
If yes give details _____

[ ] Approved Date I ____/____/____ Permit Expires ____/____/____ [ ] Denied Date ____/____/____

Reason Denied [ ] A is Variance required [ ] A Special Use Permit is required [✓] Other S.P.R.A.

_____
Signature of Zoning Enforcement Officer

TOWN OF ALABAMA

Genesee County New York

SITE PLAN REVIEW PUBLIC HEARING

Note: If the applicant is **NOT** the owner of the property for which the request is being made, a signed letter by the property owner giving authorization to the applicant to apply for the request **MUST** accompany the request, or no action can be taken.

PLEASE PRINT OR TYPE

Applicant's Name The Broadway Group, LLC Phone # 256.929.5874 Date 07/08/24

Applicant's Mailing Address 216 WESTSIDE Square Huntsville, AL 35801

Address of site plan review (if different) 7174 Alleghany Road Basom, NY 14013

Tax map # of property 14-1-32.2 Zoning District of property Commercial

Explain why you are requesting a Site Plan Review:

for the development of a 10,640 sq ft retail space with supporting infastructure; parking, drainage and lighting etc..

*You must include a site plan showing the layout and size of the lot, the location of all buildings and structures located on the property as well as driveways and parking areas for both the resident and the business. ***Note***: The Planning Board may require a more detailed site plan.

Applicant's Signature

If a Public Hearing is required the fee for said hearing must be paid before the said hearing will be scheduled.

FOR OFFICIAL USE ONLY

The above request is for a Site Plan Review by the Town of Alabama Planning Board according to Article VIII Section 808-C of the Town of Alabama Zoning Law.

Site Plan has been ☐ Approved ☐ Disapproved Date ____/____/____ (see attached resolution)

Planning Board Chairman _____

Planning Board Member _____

*Application Fee*** $200.00 Planning Board Member _____

Received By _____ Planning Board Member _____

Date Received ____/____/____ Planning Board Member _____

Escrow

**Section 813 – Public hearing and Notice Requirements. Town of Alabama Zoning Law. When a public hearing is required by the Town of Alabama Zoning Law, the requirements set forth in this section, as well as the applicable requirements of the NYS Town Law, shall be followed. All costs for the public hearing including, but not limited to the legal ad(s), required mail notifications and posting of signs, shall be paid by the applicant.

617.20
Appendix B
Short Environmental Assessment Form

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
10,566 Square Foot Commercial Building

Project Location (describe, and attach a location map):
7174 Alleghany Road (State Route 77), Basom, NY

Brief Description of Proposed Action:

The project consists of the installation of a new 10,566 square foot retail building with associated access drive, parking, and utilities. The Project Site access will be a single access point on Alleghany Road (State Route 77).

Name of Applicant or Sponsor:	Telephone: 256-533-7287
The Broadway Group	E-Mail: deanna.hyche@broadwaygroup.net

Address:
216 Westside Square

City/PO:	State:	Zip Code:
Huntsville	AL	35801

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	[X]	[ ]
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: NYSDOT - Highway Work Permit, Genesee County DOH septic system permit, NYSDEC - SWPPP	[ ]	[X]

3.a. Total acreage of the site of the proposed action? 2.50 acres
b. Total acreage to be physically disturbed? 2.00 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 2.50 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
[ ] Urban [X] Rural (non-agriculture) [ ] Industrial [ ] Commercial [X] Residential (suburban)
[ ] Forest [X] Agriculture [ ] Aquatic [ ] Other (specify): _____
[ ] Parkland

	NO	YES	N/A
5. Is the proposed action, a. A permitted use under the zoning regulations?	☐	X	☐
b. Consistent with the adopted comprehensive plan?	☐	X	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	NO ☐	YES X	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	NO X	YES ☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO X	YES ☐	
b. Are public transportation service(s) available at or near the site of the proposed action?	X	☐	
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	X	☐	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: The development of the Project Site will meet the state energy code requirements.	NO ☐	YES X	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	NO ☐	YES X	
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: on lot septic system	NO X	YES ☐	
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	NO X	YES ☐	
b. Is the proposed action located in an archeological sensitive area?	X	☐	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	NO X	YES ☐	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	X	☐	

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:
☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☒ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Northern Harrier	☐	X
16. Is the project site located in the 100 year flood plain?	NO X	YES ☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☐ NO ☐ YES	X	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☐ YES		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: Two bioretention basins to provide water quality treatment.	☐	☒
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☒	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☒	☐

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Bob Bedaoway ; The Broadway Group Date: 07-01-24

Signature:

APPLICANT STOP HERE. PLEASE PRINT ENTIRE FORM.

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?	☐	☐
2. Will the proposed action result in a change in the use or intensity of use of land?	☐	☐
3. Will the proposed action impair the character or quality of the existing community?	☐	☐
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?	☐	☐
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?	☐	☐
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?	☐	☐
7. Will the proposed action impact existing: a. public / private water supplies?	☐	☐
b. public / private wastewater treatment utilities?	☐	☐
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?	☐	☐
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?	☐	☐

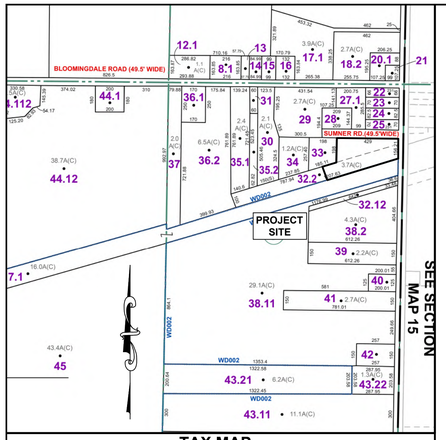
SITE PLAN DRAWINGS

FOR

10,566 SQUARE FOOT RETAIL STORE

LOCATED AT

7174 ALLEGHANY ROAD (SR77)
TOWN OF ALABAMA
GENESEE COUNTY, NY
TAX PARCEL 14-1-32.2



TAX MAP
SCALE: 1" = 500'
MAP IS A REPRODUCTION OF THE TOWN OF ALABAMA TAX MAP, SECTION 14

PROJECT NARRATIVE

THE PROPOSED PROJECT INCLUDES THE INSTALLATION OF A 10,566 SQUARE FOOT RETAIL BUILDING AT 7174 ALLEGHANY ROAD (SR77) IN THE TOWN OF ALABAMA, NY. THE PROJECT SITE IS THE CURRENTLY VANCANT. THE EXISTING ON-SITE BUILDING AND PARKING LOT WILL BE DEMOLISHED TO ALLOW FOR THE INSTALLATION OF THE PROPOSED RETAIL BUILDING AND PARKING. THE SITE IS ZONED COMMERCIAL (C). A RETAIL BUILDING IS A PERMITTED USE IN THIS ZONE.

ELECTRIC, GAS, AND MUNICIPAL WATER ARE READILY AVAILABLE AT THE PROJECT SITE. SANITARY SEWAGE GENERATED AT THE PROPOSED BUILDING WILL BE DISPOSED THROUGH AN ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS). A FIRE HYDRANT IS LOCATED NORTHEAST OF THE PROJECT SITE.

ACCESS TO THE PROJECT SITE IS ANTICIPATED TO BE THROUGH THE INSTALLATION OF A NEW ACCESS DRIVE. THE PROPOSED ACCESS WILL REQUIRE ALL SITE TRAFFIC TO ENTER AND EXIT THROUGH A SINGLE DRIVEWAY.

BULK ZONING TABLE

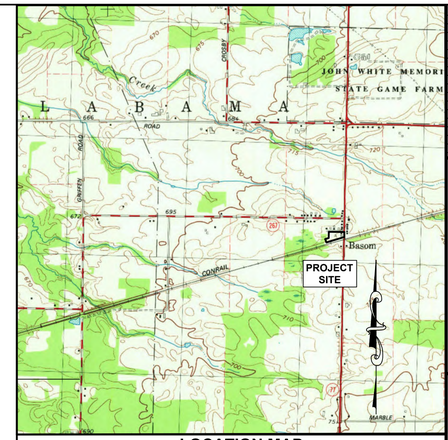
TOWN OF ALABAMA, NY
COMMERIAL (C) DISTRICT:

ZONING REQUIREMENTS:	REQUIRED	PROPOSED
MINIMUM LOT AREA	40,000 SF	108,813 SF
MINIMUM LOT WIDTH	200 FEET	190.46 FEET
MINIMUM FRONT YARD	75 FEET	75.00 FEET
MINIMUM SIDE YARD	15 FEET	68.43 FEET
MINIMUM REAR YARD	35 FEET	218.11 FEET
MAXIMUM LOT COVERAGE	35%	9.71%
MAXIMUM BUILDING HEIGHT	35 FEET	20.00 FEET

PROJECT LOCATION NOTES

1. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) - SEE SHEET C-203 FOR NYSDOT REGION 4 GENERAL NOTES AND HOLIDAY OPERATIONS NOTES.
2. PROJECT BOUNDARY - FOR THE METES AND BOUNDS DESCRIPTION OF THE PROJECT SITE PROPERTY, PLEASE SEE C-110.
3. EXISTING ROAD NETWORK - ALLEGHANY ROAD IS STATE ROUTE 77 WITH A POSTED SPEED LIMIT OF 40 MILES PER HOUR (MPH).
4. FLOODPLAIN - THE PROJECT SITE IS LOCATED IN A "ZONE C - AREA OUTSIDE OF 500 YEAR FLOOD" PER TOWN OF ALABAMA FLOOD INSURANCE RATE MAP.
5. FLOODPLAIN - THE PROJECT SITE IS LOCATED IN A "ZONE C - AREA OUTSIDE OF 500 YEAR FLOOD" PER TOWN OF ALABAMA FLOOD INSURANCE RATE MAP 361067C.
6. WETLANDS - THE NATIONAL WETLANDS INVENTORY SHOWS NO AREA OF WETLANDS OR STATE REGULATED CHECKZONE ON THE PROJECT SITE. NO VISIBLE EVIDENCE OF WETLANDS WAS FOUND IN THE AREA OF DEVELOPMENT DURING A SITE VISIT BY WMB STAFF.
7. WATERWAY - STORMWATER RUNOFF FROM THE PROJECT SITE IS TRIBUTARY TO WHITNEY CREEK WHICH HAS A NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) CLASSIFICATION OF "C (BEST USAGE FISHING)". CROOKED CREEK IS NOT CLASSIFIED AS A TROUT OR TROUT SPAWNING WATERWAY.
8. AGRICULTURAL DISTRICT - THE GENESEE 2 CERTIFIED AGRICULTURAL DISTRICT IS LOCATED ON THE EAST SIDE OF ALLEGHANY ROAD AND TO THE SOUTH OF THE SITE.
9. ENVIRONMENTAL JUSTICE AREAS - THE PROJECT SITE IS NOT LOCATED WITHIN A NYSDEC DESIGNATED ENVIRONMENTAL JUSTICE AREA.
10. ACCORDING TO THE NYSDEC MAPPER - THE PROJECT SITE IS LOCATED WITHIN AN AREA LABELED AS A NORTHERN HARRIER HABITAT WHICH IS LABELED AS AN ENDANGERED OR THREATENED SPECIES. CLEARANCE HAS BEEN RECEIVED FROM THE NYSDEC IN A LETTER DATED JULY 13, 2023.

LIST OF DRAWINGS



LOCATION MAP
SCALE: 1" = 2000'
MAP IS A REPRODUCTION OF THE AKRON, NEW YORK USGS QUADRANGLE

NO	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

DEVELOPER
THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801
(256)533-7287

OWNER
SWEET HAVEN FARMS, LLC

ENGINEER
WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
(607)565-8800

DESIGNER CONTACT STATEMENT

WMB GEOLOGIC & ENGINEERING SERVICES, DPC IS RESPONSIBLE FOR THE DESIGN OF THIS PROJECT. DAVID W. YOUNG, PE IS THE DESIGNER AND IS FAMILIAR WITH NYSDOT STANDARDS AND REQUIREMENTS AND SHALL BE CONTACTED AT 607-738-2704 TO RESOLVE ISSUES OR PROBLEMS DURING CONSTRUCTION. ALL REVISIONS, INCLUDING REVISIONS NECESSARY DUE TO FIELD CONDITIONS, SHALL BE APPROVED BY THE NYSDOT.

NOTICE

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON TO ALTER THIS DRAWING OR DOCUMENT IN ANY WAY, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED DESIGN PROFESSIONAL ENGINEER. IF THIS DRAWING OR DOCUMENT IS ALTERED, THE ALTERING DESIGN PROFESSIONAL SHALL AFFIX TO THE DRAWING OR DOCUMENT HIS OR HER SEAL. THE NOTATION "ALTERED BY" FOLLOWED BY HIS OR HER SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

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

DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

STATE OF NEW YORK · DAVID W. YOUNG · No. 071156 · LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID:	DRAWN:
21-274.02-DY	JAM
DATE:	DESIGN:
2023-07-27	DWY
SCALE:	CHECKED:
AS NOTED	DWY

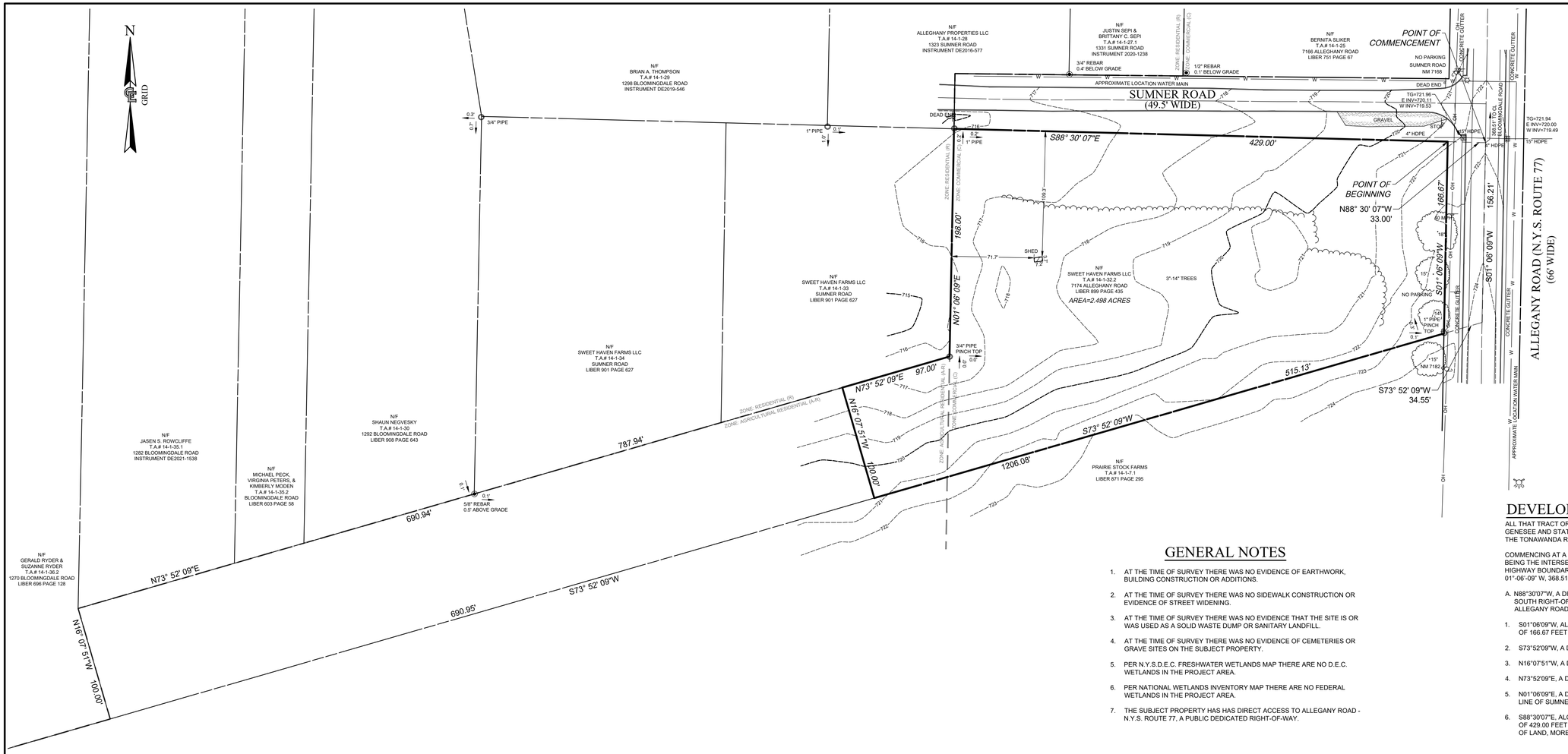
PROJECT:

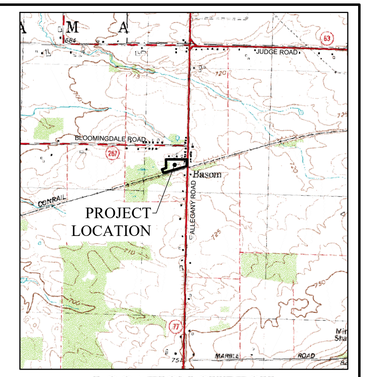
10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

COVER SHEET

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-100





LOCATION SKETCH

NOT TO SCALE

GENERAL NOTES

1. AT THE TIME OF SURVEY THERE WAS NO EVIDENCE OF EARTHWORK, BUILDING CONSTRUCTION OR ADDITIONS.
2. AT THE TIME OF SURVEY THERE WAS NO SIDEWALK CONSTRUCTION OR EVIDENCE OF STREET WIDENING.
3. AT THE TIME OF SURVEY THERE WAS NO EVIDENCE THAT THE SITE IS OR WAS USED AS A SOLID WASTE DUMP OR SANITARY LANDFILL.
4. AT THE TIME OF SURVEY THERE WAS NO EVIDENCE OF CEMETERIES OR GRAVE SITES ON THE SUBJECT PROPERTY.
5. PER N.Y.S.D.E.C. FRESHWATER WETLANDS MAP THERE ARE NO D.E.C. WETLANDS IN THE PROJECT AREA.
6. PER NATIONAL WETLANDS INVENTORY MAP THERE ARE NO FEDERAL WETLANDS IN THE PROJECT AREA.
7. THE SUBJECT PROPERTY HAS HAS DIRECT ACCESS TO ALLEGANY ROAD - N.Y.S. ROUTE 77, A PUBLIC DEDICATED RIGHT-OF-WAY.

DEVELOPMENT PARCEL DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND, SITUATE IN THE TOWN OF ALABAMA, COUNTY OF GENESEE AND STATE OF NEW YORK, BEING PART OF LOT 3, TOWNSHIP 13, RANGE 4 OF THE TONAWANDA RESERVATION, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT IN THE CENTERLINE OF ALLEGANY ROAD (ROUTE 77), SAID POINT BEING THE INTERSECTION OF THE CENTERLINE OF ALLEGANY ROAD AND THE SOUTHERLY HIGHWAY BOUNDARY OF SUMNER ROAD (A.K.A PENDER ROAD), SAID POINT BEING S 01°-06'-09" W, 368.51' FROM THE NORTHEAST CORNER OF LOT 3; THENCE

A. N88°30'07"W, A DISTANCE OF 33.00 FEET TO A POINT AT THE INTERSECTION OF THE SOUTH RIGHT-OF-WAY LINE OF SUMNER ROAD AND THE WEST RIGHT-OF-WAY LINE OF ALLEGANY ROAD, SAID POINT BEING THE POINT AND PLACE OF BEGINNING;

1. S01°06'09"W, ALONG THE WEST RIGHT-OF-WAY LINE OF ALLEGANY ROAD, A DISTANCE OF 166.67 FEET TO A POINT; THENCE
2. S73°52'09"W, A DISTANCE OF 515.13 FEET TO A POINT; THENCE
3. N16°07'51"W, A DISTANCE OF 100.00 FEET TO A POINT; THENCE
4. N73°52'09"E, A DISTANCE OF 97.00 FEET TO A POINT; THENCE
5. N01°06'09"E, A DISTANCE OF 198.00 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF SUMNER ROAD; THENCE
6. S88°30'07"E, ALONG THE SOUTH RIGHT-OF-WAY LINE OF SUMNER ROAD, A DISTANCE OF 429.00 FEET TO THE POINT AND PLACE OF BEGINNING. CONTAINING 2.498 ACRES OF LAND, MORE OR LESS.

REFERENCES

1. THE DEEDS AS SHOWN ON FILE AT THE GENESEE COUNTY CLERK'S OFFICE.
2. TITLE REPORT PREPARED BY FRONTIER ABSTRACT, HAVING COMMITMENT NO. 5162218, DATED 1/16/2022, LAST REVISED12/5/2022.

UTILITY INFORMATION

UTILITY INFORMATION PER UFPO DESIGN TICKET # 12132-000-754-00
DATED DECEMBER 13, 2022

1.	EMPIRE ACCESS	607-522-4276	NO RESPONSE
2.	NATIONAL FUEL GAS / BATAVIA - NFG01	716-857-7431	NO RESPONSE
3.	NATIONAL GRID / WEST/ ELECTRIC	315-428-6319	NO CONFLICT
4.	TOWN OF BATAVIA	585-343-1729 x220	NO RESPONSE
5.	VERIZON / BUFFALO	315-937-2515	NO RESPONSE

FLOOD NOTE:
By graphic plotting only, this property is in Zone X of the Flood Insurance Rate Map, Community Panel No. 361067 C, Town of Alabama, which bears an effective date of November 18, 1983, No field surveying was performed to determine this zone and an elevation certificate may be needed to verify this determination or apply for a variance from the Federal Emergency Management Agency.

LINE LEGEND

- SECTION/PARCEL BOUNDARY
- MIN. BUILDING SETBACK
- CENTER LINE
- EXIST. EASEMENT LINE
- EXIST. RIGHT-OF-WAY LINE
- EXIST. EDGE OF PAVEMENT
- EXISTING WATER MAIN, VALVE, & HYDRANT.
- EXISTING SANITARY SEWER, & MANHOLE.
- EXISTING DRAINAGE SEWER, FIELD INLET, INLET MANHOLE, MANHOLE, & END SECTION.
- EXISTING OVERHEAD UTILITIES
- EXISTING TELEPHONE
- EXISTING UNDERGROUND UTILITIES
- EXISTING GAS
- EXISTING ELECTRIC
- EXISTING GUARD RAIL
- TREE,HEDGE,EDGE OF WOODS
- EXISTING SWALE
- BARBED WIRE,STOCKADE,CHAIN LINKED FENCE
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION @ X
- CONCRETE PAD/ CONCRETE SIDEWALK

SYMBOL LEGEND

- DRAINAGE MANHOLE
- INLET DRAINAGE MANHOLE
- CATCH BASIN
- END SECTION
- END OF PIPE
- MANHOLE
- SANITARY MANHOLE
- C.O. CLEAN OUT
- GAS VALVE
- GAS SERVICE
- GAS METER
- WATER VALVE
- WATER SERVICE
- HYDRANT
- UTILITY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- PEDESTRIAN POLE
- TRAFFIC CONTROL CABINET
- LAMP POST
- LIGHT POLE
- UTILITY POLE WITH LIGHT
- FLAG POLE
- MAILBOX
- BOLLARD
- POST
- SIGN
- SIGN
- SIGN

SCHEDULE A - PROPERTY DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND, SITUATE IN THE TOWN OF ALABAMA, COUNTY OF GENESEE AND STATE OF NEW YORK, BEING PART OF LOT 3, TOWNSHIP 13, RANGE 4 OF THE TONAWANDA RESERVATION, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE CENTERLINE OF ALLEGANY ROAD (ROUTE77), SAID POINT BEING THE INTERSECTION OF THE CENTERLINE OF ALLEGANY ROAD AND THE SOUTHERLY HIGHWAY BOUNDARY OF SUMNER ROAD (A.K.A PENDER ROAD), SAID POINT BEING S 07°-30'-00" W, 368.51' FROM THE NORTHEAST CORNER OF LOT 3;

THENCE N 82°-06'-16" W, ALONG THE SOUTHERLY HIGHWAY BOUNDARY OF SUMNER ROAD, A DISTANCE OF 462.00' TO A POINT, SAID POINT BEING THE NORTHEAST CORNER OF LAND CONVEYED TO WILBUR AND ALBERTA M. O'DELL AT LIBER 579 OF DEEDS, PAGE 321;

THENCE S 07°-30'-00" W, ALONG THE EASTERLY LINE OF O'DELL LANDS, A DISTANCE OF 198.00' TO A POINT ON THE NORTHERLY LINE OF LAND FORMERLY OWNED BY THE NEW YORK, WEST SHORE AND BUFFALO RAILROAD COMPANY, SAID POINT BEING THE SOUTHEAST CORNER OF O'DELL LANDS;

THENCE S 80°-16'-00" W, ALONG THE NORTHERLY LINE OF SAID RAILROAD LANDS, A DISTANCE OF 787.94' TO A POINT, SAID POINT BEING THE SOUTHWEST CORNER OF LAND CONVEYED TO BONNIE C. ROWCLIFFE AT LIBER 853 OF DEEDS, PAGE 539;

THENCE S 09°-44'-00" E, A DISTANCE OF 100.00' TO A POINT;

THENCE N 80°-16'-00" E, A DISTANCE OF 1240.63' TO A POINT IN THE CENTERLINE OF ALLEGANY ROAD;

THENCE N 07°-30'-00" E, ALONG THE CENTERLINE OF ALLEGANY ROAD, A DISTANCE OF 156.21' TO THE POINT OF BEGINNING, CONTAINING 4.207± ACRES.

SCHEDULE B - EXCEPTIONS

5. RIGHTS OF THE PUBLIC IN AND TO ANY PORTION OF THE PREMISES LOCATED WITHIN THE BOUNDS OF ALLEGHANY ROAD.

SURVEY NOTES

1. TOPOGRAPHY SHOWN FROM A FIELD SURVEY BY COSTICH ENGINEERING ON 12/14/2022 HORIZONTAL AND VERTICAL DATA OBTAINED THROUGH NYSDOT CORS NETWORK REFERENCED TO THE FOLLOWING MONUMENT

   BATAVIA CORS STATION
   -LATITUDE: 42-59-17.96010 (N) NAD 83 (CORS)
   -LONGITUDE: 078-07-20.37524 (W)
   -ELLIP HEIGHT: 262.231 METERS NAVD 88 (CORS)

2. BEARINGS SHOWN ARE PER NEW YORK STATE PLANE GRID COORDINATES. DEED BEARINGS WERE ROTATED 6°23'51" COUNTER-CLOCKWISE.

CERTIFICATION

WE, COSTICH ENGINEERING, D.P.C., HEREBY CERTIFY TO:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1,2,3,5,6a,6b,7a,7b,7c 8,9,10,11,12,13,14,15,16,17,18,19 AND 20 OF TABLE A THEREOF.

THIS MAP WAS PREPARED FROM NOTES OF AN INSTRUMENT SURVEY COMPLETED ON DECEMBER 14, 2022 AND FROM THE REFERENCE(S) LISTED HEREON. NO SEARCH OF RECORDS, OTHER THAN THOSE REFERENCED, WAS MADE FOR EASEMENTS OR ENCUMBRANCES AFFECTING THIS PARCEL.

By: Daniel T. Hickok Date: 07-01-2024
Daniel T. Hickok, N.Y.S. L.S., No. 050449

UDIG-NY | 811

EXISTING UTILITIES (LOCATION, SIZES AND INVERTS) SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT CERTIFIED AS TO THE ACCURACY OF THEIR LOCATION OR COMPLETENESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES AND STRUCTURES IN THE PATH OF, OR CLOSELY PARALLEL TO, OR UNDER, THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DELAYS OR DAMAGES OCCURRING AS A RESULT OF INCORRECTLY LOCATED UTILITIES. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITY OWNERS IN AMPLE TIME FOR THEM TO LOCATE AND MARK THEIR FACILITIES. THE CONTRACTOR SHALL ALSO NOTIFY UNDERGROUND UTILITY LOCATION SERVICE AT LEAST 48 HOURS IN ADVANCE OF COMMENCING ANY WORK.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

NO.	DATE	REVISION	BY	CHKD.	APVLS.

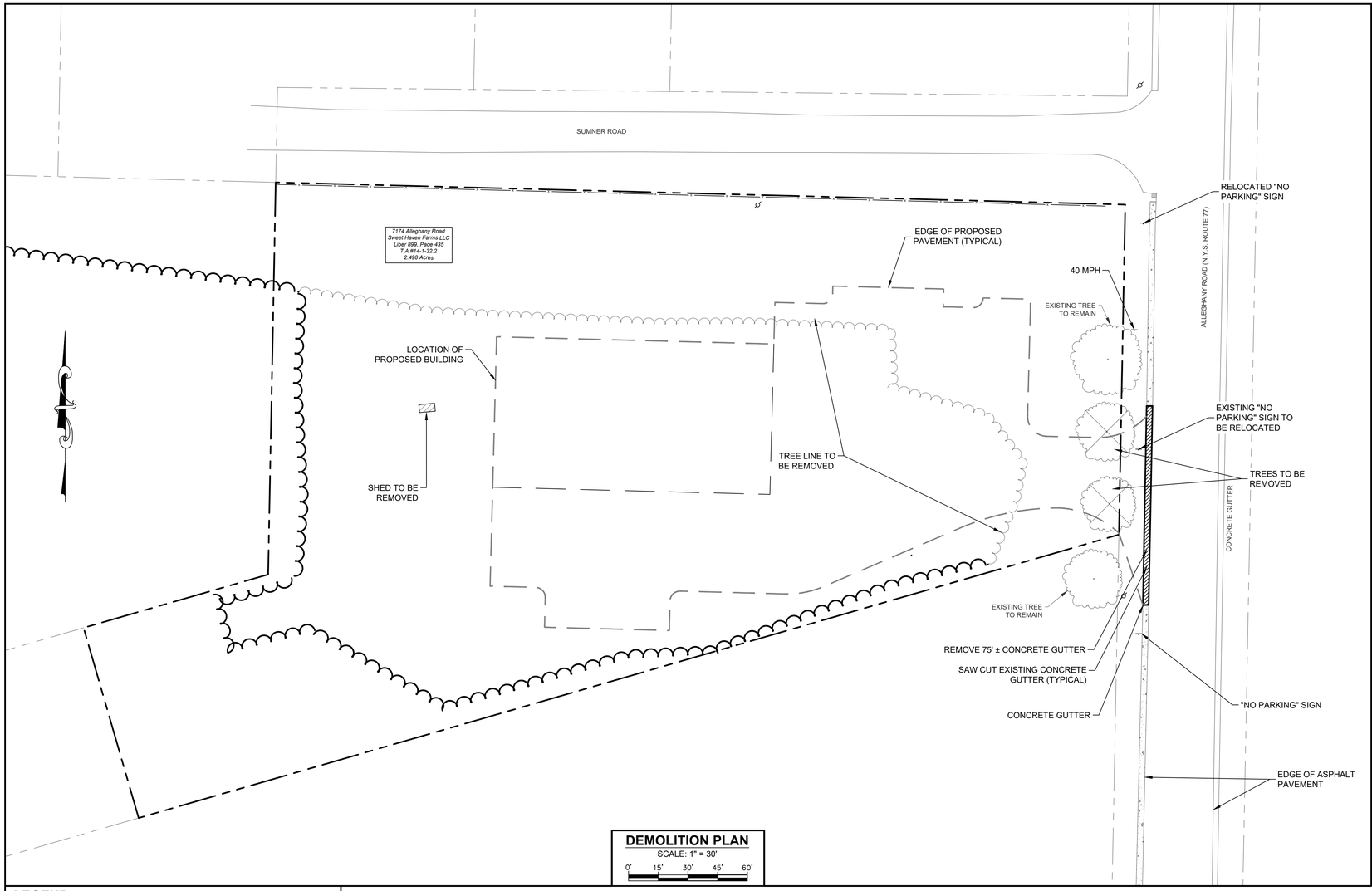
STATE OF NEW YORK · DANIEL T. HICKOK · L.S. NO. 050449 · LICENSED LAND SURVEYOR

PROJECT MANAGER	D.T.H.
DRAWN BY	G.M.S.
BOUNDARY	G.M.S.
TOPO/BASE	G.L.R.
DATE	1/10/2023
SCALE	1"=50'

COSTICH ENGINEERING
217 Lake Avenue
Rochester, NY 14608
(585) 458-3020

- Civil Engineering
- Land Surveying
- Landscape Architecture

TITLE OF PROJECT	DOLLAR GENERAL STORE 7174 ALLEGANY ROAD
TITLE OF DRAWING	ALTA/NSPS LAND TITLE SURVEY
LOCATION OF PROJECT	TAX PARCEL NO. 14-1-32.2 TOWN LOT 3, TOWNSHIP 13, RANGE 4, TONAWANDA RESERVATION TOWN OF ALABAMA, COUNTY OF GENESEE, STATE OF NEW YORK
CLIENT	THE BROADWAY GROUP 216 WESTSIDE SQUARE HUNTSVILLE, ALABAMA 35801
DWG. #	8802 VT100 SHEET 1 OF 1



DEMOLITION PLAN
SCALE: 1" = 30'
0' 15' 30' 45' 60'

DEMOLITION NOTES:

1. REFER TO SHEET C-110 FOR PROJECT SITE BOUNDARY METES AND BOUNDS.
2. REFER TO REQUIREMENTS OUTLINED IN THE EROSION & SEDIMENT CONTROL PLANS & NOTES PRIOR TO COMMENCEMENT OF WORK.
3. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF GUIDERAIL, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
4. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
5. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
6. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
7. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
8. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES 48 HOURS BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED.
9. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
10. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
11. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES.
12. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS OR SIDEWALKS WITHOUT PERMITS. COORDINATE WITH AUTHORITY HAVING JURISDICTION.
13. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
14. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
15. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH DEMOLITION REQUIREMENTS TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
16. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS.
17. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
18. USE WATER MIST, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS CAUSING ICING, FLOODING, AND TRANSPORTING POLLUTANTS.
19. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
20. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION.
21. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.
22. CONCRETE GUTTER SECTIONS TO BE REMOVED BY SAWCUTTING ALONG ASPHALT SHOULDER AND AT JOINT IN GUTTER.

LEGEND:

- PROJECT PROPERTY LINE
- ADJOINER PROPERTY LINE
- UTILITY POLE
- EX TREE LINE TO REMAIN
- EX TREE LINE TO BE REMOVED
- PROPOSED AND BUILDING
- PROPOSED EDGE OF PAVEMENT

NO.	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

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

DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

STATE OF NEW YORK · DAVID W. YOUNG · No. 071156 · LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID:	DRAWN:
21-274.02-DY	JAM
DATE:	DESIGN:
2023-07-27	DWY
SCALE:	CHECKED:
AS NOTED	DWY

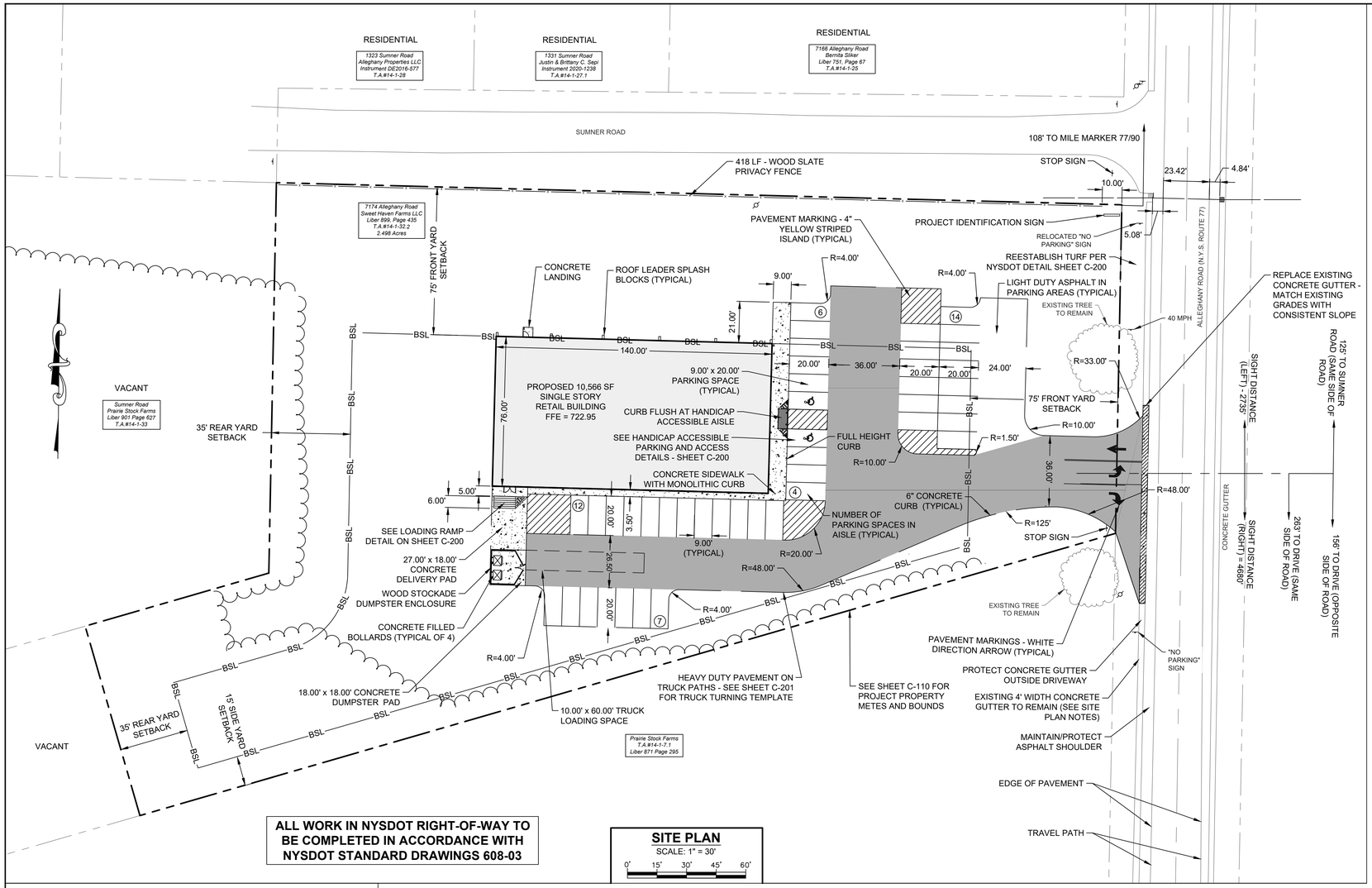
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

DEMOLITION PLAN

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-111



ALL WORK IN NYSDOT RIGHT-OF-WAY TO BE COMPLETED IN ACCORDANCE WITH NYSDOT STANDARD DRAWINGS 608-03

SITE PLAN
SCALE: 1" = 30'
0' 15' 30' 45' 60'

LEGEND

- PROPERTY LINE
- ADJOINER PROPERTY LINE
- BUILDING SETBACK LINE (BSL)
- PROPOSED TREE LINE
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED PARKING AISLE (NO PARKING)
- HANDICAP PARKING SYMBOL
- PROPOSED FENCE LINE

SITE PLAN NOTES:

1. SEE SHEET C-100 FOR ZONING AND SITE ENVIRONMENTAL CONDITIONS.
2. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR OWNER, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED LAND SURVEYOR.
3. ALL PAVEMENT RESTORATION SHALL MEET AND MATCH EXISTING GRADES.
4. ALL CONCRETE GUTTER INSTALLED TO BE CONVENTIONALLY FORMED OR MACHINE FORMED IN ACCORDANCE WITH NYSDOT ITEM 624.01. ALL CONCRETE SAW CUT LINES SHALL BE IN ACCORDANCE WITH NYSDOT ITEM 627.50140008.
5. ALL ARCHITECTURE IS SUBJECT TO PLANNING BOARD REVIEW.
6. NOTIFY THE ENGINEER 48 HOURS PRIOR TO INITIALIZATION OF ANY WORK ON SITE.
7. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR REVIEW AND APPROVAL FROM THE ENGINEER.
8. CONTRACTOR IS RESPONSIBLE FOR EMPLOYING AND MAINTAINING ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.
9. CONTRACTOR IS RESPONSIBLE FOR PROPERLY AND SAFELY MAINTAINING AREA BETWEEN THE PROJECT SITE AND ALL ADJOINING PROPERTIES.
10. NO WORK, STORAGE, OR TRESPASS SHALL BE PERMITTED BEYOND THE SITE PROPERTY LINES OR PUBLIC RIGHT-OF-WAY.
11. ALL EXISTING LAWN AREA, CURBING, PAVING, SIDEWALKS, CULVERTS, OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED BY TRENCHING OR EXCAVATION OPERATIONS SHALL BE REPLACED OR REPAIRED TO A CONDITION EQUAL TO EXISTING, AS DESCRIBED IN CONTRACT DOCUMENTS OR AS ORDERED BY ENGINEER (AOBE). MAILBOXES, SIGN POSTS, ETC. SHALL BE PROTECTED OR REMOVED AND REPLACED EXACTLY AS THEY WERE BEFORE BEING DISTURBED. REMOVE AND REPLACE AFFECTED CURBING AND SIDEWALK TO NEAREST JOINT. REMOVE PAVEMENT AND REPLACE TO SAW CUT LINE. SAW CUT IN STRAIGHT LINE TO POINT NEEDED TO BLEND GRADE. REMOVE LAWN AND REPLACE TO MINIMUM LIMIT OF EXCAVATION.
12. THE FOLLOWING EQUIPMENT IS REQUIRED TO BE ON SITE ON A DAILY BASIS AND FULLY OPERATIONAL.
    A. VIBRATORY TRENCH ROLLER; PRIMARY COMPACTION EQUIPMENT.
    B. JUMPING JACK COMPACTOR; SECONDARY COMPACTION EQUIPMENT FOR USE IN TIGHT AREAS, WHERE THE VIBRATORY TRENCH ROLLER CANNOT BE USED. IF ANY OF THE EQUIPMENT LISTED ABOVE IS NOT OPERATIONAL, NO EXCAVATING SHALL BE PERFORMED UNTIL ALL EQUIPMENT IS FUNCTIONING PROPERLY.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF SIGNS, GUIDE RAILS, GUIDE POSTS, CULVERT PIPES, MAILBOXES, HEADWALLS, ETC. WHICH MUST BE REMOVED FOR CONSTRUCTION. CONTRACTOR SHALL REINSTALL ANY REMOVED ITEMS ON A DAILY BASIS. ANY ITEMS DAMAGED BY REMOVAL OR REINSTALLATION SHALL BE REPLACED AND REINSTALLED BY THE CONTRACTOR WITH A NEW ITEM.
14. NO TRACK EQUIPMENT IS ALLOWED ON THE STATE AND COUNTY ROADWAYS WITHOUT PLACING MATS, PLYWOOD, TIRES, ETC. TO PROTECT THE ASPHALT LOAD.
15. NO OPEN TRENCHES ARE ALLOWED TO REMAIN OPEN OVERNIGHT. ALL OPEN TRENCHES ARE REQUIRED TO BE BACKFILLED ON A DAILY BASIS.
16. NO ROAD PLATES ARE ALLOWED TO BE USED OVERNIGHT. ROAD PLATES ARE ONLY ALLOWED TO BE USED DURING DAILY OPERATIONS TO MAINTAIN TRAFFIC ON THE ROADWAY.
17. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER COORDINATION WITH HOMEOWNERS AND BUSINESSES TO ENSURE THAT THEY CAN ENTER AND EXIT THEIR DRIVEWAYS DURING THE COURSE OF DAY TO DAY OPERATIONS.
18. NO SITE PREPARATION OR CONSTRUCTION, INCLUDING UTILITY CONNECTIONS, SHALL COMMENCE UNTIL A VALID HIGHWAY WORK PERMIT HAS BEEN SECURED FROM THE COUNTY HIGHWAY DEPARTMENT AND/OR STATE DEPARTMENT OF TRANSPORTATION
19. PROJECT IDENTIFICATION SIGN TO BE SUBMITTED TO TOWN WITH BUILDING PERMIT APPLICATION.

PAVING NOTES:

1. NO VEHICULAR TRAFFIC OF ANY SORT SHALL BE PERMITTED ON THE SURFACE OF SUBBASE COURSE MATERIAL ONCE IT HAS BEEN FINE GRADED, COMPACTED AND IS READY FOR PAVING. SUBBASE MATERIAL SO PREPARED FOR PAVING SHALL BE PAVED WITHIN THREE DAYS OF PREPARATION.
2. SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST EDITION. CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THESE DRAWINGS.
3. PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SCREEN. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND.
4. PROVIDE JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAY'S WORK.
5. TACK COAT WHEN SPECIFIED OR CALLED OUT ON THE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATION SHALL CONFORM WITH THE FOLLOWING:
    A. TACK COAT SHALL MEET THE MATERIAL REQUIREMENTS OF 702 ASPHALT EMULSION FOR TACK COAT OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST EDITION, SHALL BE APPLIED IN ACCORDANCE WITH SECTION 407 - TACK COAT AND SHALL BE IN ACCORDANCE WITH THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
    B. REMOVE LOOSE AND FOREIGN MATERIAL FROM ASPHALT SURFACE BEFORE PAVING NEXT COURSE. USE POWER BROOMS, BLOWERS, OR HAND BROOM.
    C. APPLY TACK COAT TO ASPHALT PAVEMENT SURFACES AND SURFACES OF CURBS, GUTTERS, MANHOLES, AND OTHER STRUCTURES PROJECTING INTO OR ABUTTING PAVEMENT. DRY TO A "TACKY" CONSISTENCY BEFORE PAVING.
    D. TACK COAT ENTIRE VERTICAL SURFACE OF ABUTTING EXISTING PAVEMENT.
6. AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL, OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.

LAYOUT NOTES:

1. BUILDING DIMENSIONS TO BE TAKEN FROM THE ARCHITECTURAL BUILDING PLANS. NOTIFY THE ENGINEER OF ANY DEVIATION FROM CONDITIONS SHOWN ON THESE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD LAYOUT. THE CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS BUILTS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND THE ENGINEER. THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADDITIONS TO THE SATISFACTION OF THE OWNER AND THE ENGINEER BEFORE UTILITIES WILL BE ACCEPTED.

STRIPING:

1. STRIPE PAVEMENT AS INDICATED ON THE PLANS AND/OR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
2. COLOR: DRIVE LANE DIVIDERS - WHITE OR AOBE
   NO PARKING ZONE WARNINGS - WHITE OR AOBE
   PARKING DIVIDERS - WHITE OR AOBE
   WALKING LINES - WHITE OR AOBE
   HANDICAP PARKING LINES AND SYMBOL - BLUE
3. REFLECTORIZED PAVEMENT MARKING PAINTS SHALL BE SELECTED FROM THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION APPROVED LIST OF WHITE AND YELLOW REFLECTORIZED PAVEMENT MARKING PAINTS. IMMEDIATELY FOLLOWING PAINT APPLICATION , REFLECTIVE GLASS BEADS SHALL BE UNIFORMLY APPLIED AT A RATE OF 5 POUNDS PER GALLON OF PAINT.

PARKING REQUIRED BY ZONING:

1 SPACE PER 200 SF BUILDING AREA = 10,566 SF/200 SF = 53 SPACES
1 SPACE PER EMPLOYEE = 2
TOTAL SPACES REQUIRED = 55
SPACES PROVIDED: 43

HANDICAP ACCESSIBLE SPACES REQUIRED BY ADA:
1 SPACE PER 25 TOTAL SPACES = 43/25 = 2
HANDICAP ACCESSIBLE SPACES PROVIDED = 2

NO.	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY

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THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

STATE OF NEW YORK — DAVID W. YOUNG — No. 071156 — LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID: 21-274.02-DY	DRAWN: JAM
DATE: 2023-07-27	DESIGN: DWY
SCALE: AS NOTED	CHECKED: DWY

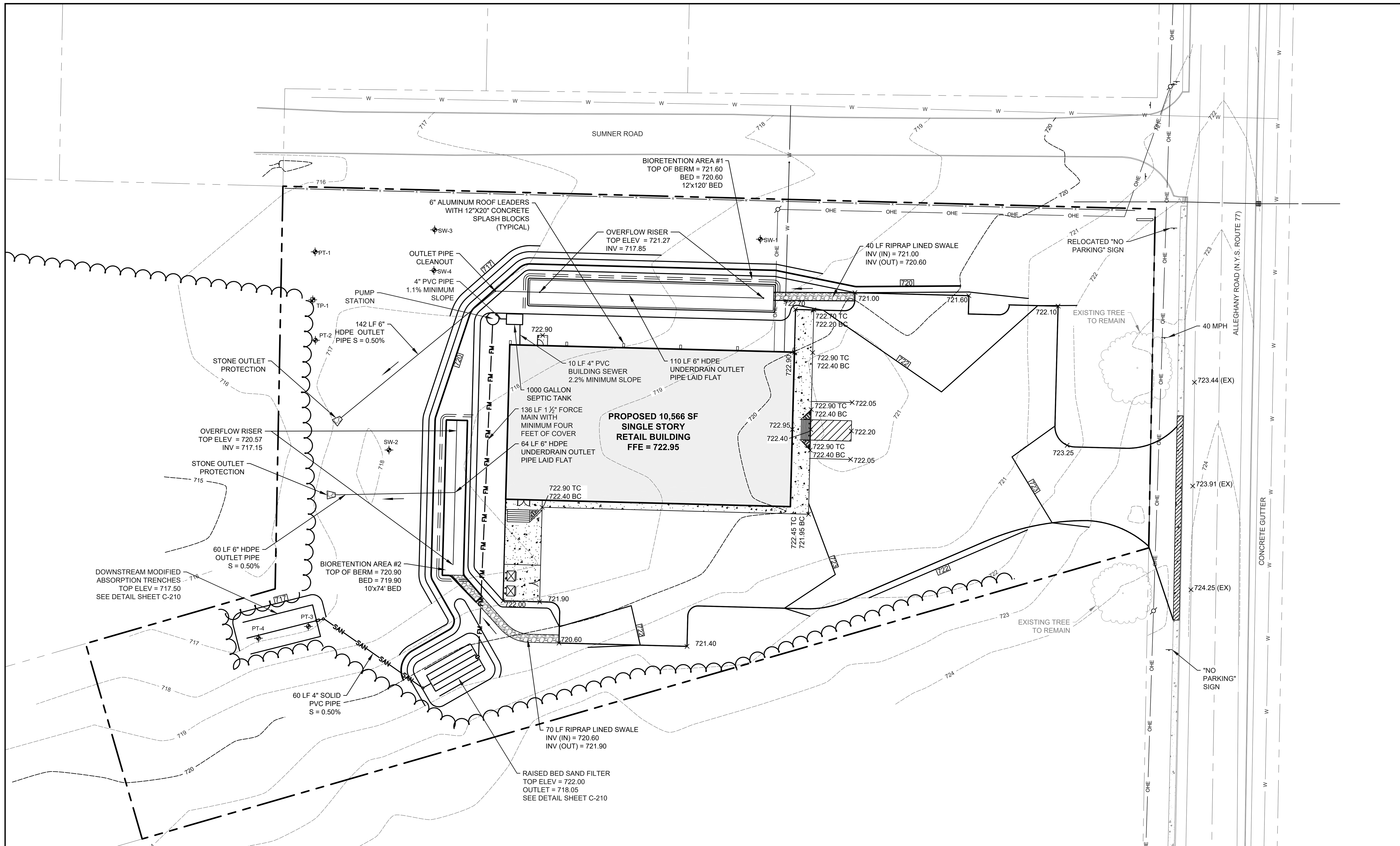
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

SITE PLAN

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-120



GRADING AND DRAINAGE PLAN

SCALE: 1" = 30'

0' 15' 30' 45' 60'

GRADING NOTES:

1. PRIOR TO SITE DISTURBANCE, CONTRACTOR TO INSTALL EROSION & SEDIMENT CONTROL MEASURES.
2. CONTRACTOR SHALL REVIEW AND COMPLY WITH THE GEOTECHNICAL REPORT AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT SITE.
3. GRAVEL AREAS TO BE CONVERTED TO A LAWN SURFACE SHALL RECIEVE "DEEP RIPPING AND DECOMPACTION" TREATMENT PER THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION GUIDANCE PROVIDED IN THE SWPPP.
4. IF ROCK IS ENCOUNTERED DURING CONSTRUCTION & REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
5. ALL BLASTING OPERATIONS WILL ADHERE TO NEW YORK STATE AND LOCAL AUTHORITY ORDINANCES GOVERNING THE USE OF EXPLOSIVES. THE STATE REGULATIONS ARE CONTAINED IN 12 NYCRR 39 AND INDUSTRIAL CODE RULE 753 STRIP ALL TOPSOIL PRIOR TO COMMENCING EARTHWORK OPERATIONS. TOPSOIL MAY BE STORED AND REUSED IN LAWN AND PLANTING AREAS ONLY. TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE TO REMAIN GREEN.
6. BOX ALL TREES AND HOUSE ALL SHRUBS AND HEDGES BEFORE PLACING EARTH AGAINST OR NEAR THEM. ORNAMENTAL TREES, SHRUBS AND HEDGES WHICH MUST BE REMOVED DURING CONSTRUCTION SHALL BE HEALED IN AND REPLANTED IN AS GOOD A CONDITION AS THEY WERE BEFORE THEIR REMOVAL. ANY DAMAGED TREES, SHRUBS, AND/OR HEDGES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
7. ALL EARTHWORK SHALL BE SMOOTHLY AND EVENLY BLENDED INTO EXISTING CONDITIONS. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE BOUNDARIES OF ANY EASEMENT OR PROPERTY LINE.
8. REMOVE ALL VEGETATION, TREES, STUMPS, GRASSES, ORGANIC SOILS, DEBRIS AND DELETERIOUS MATERIALS WITHIN THE AREAS SLATED FOR CONSTRUCTION.
9. IF PREVIOUSLY UNKNOWN CULTURAL, ARCHAEOLOGICAL, OR HISTORIC REMAINS OR ARTIFACTS ARE DISCOVERED IN THE COURSE OF CONSTRUCTION OF THIS PROJECT, THE PROJECT SPONSORS SHALL SUSPEND CONSTRUCTION OPERATIONS IN THE PERTINENT AREA AND SHALL NOTIFY THE PROJECT ENGINEER. CONSTRUCTION IN THAT AREA SHALL RESUME ONLY AFTER COMPLETION OF FEDERAL, TRIBAL, AND STATE COORDINATION TO DETERMINE WHETHER PROTECTION OR RECOVERY OF THE REMAINS IS WARRANTED, OR WHETHER THE SITE IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.

ROCK BLASTING NOTES:

BLASTING OF BEDROCK IS NOT ANTICIPATED AT THIS SITE IN ORDER TO COMPLETE THE PROPOSED DEVELOPMENT. HOWEVER, IF BLASTING OF BEDROCK BECOMES NECESSARY, CONTRACTOR SHALL COMPLY WITH THE FOLLOWING:

1. ALL RECOMMENDED SAFETY REQUIREMENTS AND STANDARDS REFERENCED AND ANY LOCAL RESTRICTIONS SHALL BE APPLIED AS REQUIRED FOR SAFETY, SECURITY, AND SPECIFICALLY RELATED DETAILS FOR BLASTING PROCEDURES. AT ALL TIMES, FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE FOLLOWED CONCERNING THE TRANSPORTATION AND STORAGE OF EXPLOSIVES.
2. A MINIMUM OF FOUR (4) DAYS PRIOR TO COMMENCEMENT OF THE INITIAL BLASTING OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES AS APPROPRIATE: POLICE AGENCIES, GAS AND ELECTRIC SERVICE COMPANIES, TELEPHONE AND CABLE OPERATING COMPANIES, TOWN WATER AND SEWER DEPARTMENTS, NYSDOT, AND LOCAL FIRE, RESCUE, AND AMBULANCE SERVICES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE RESULTING FROM THE USE OF EXPLOSIVES. EXPLOSIVES SHALL BE STORED IN A SECURE MANNER IN COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES.
4. THE CONTRACTOR SHALL NOTIFY EACH PROPERTY AND UTILITY OWNER HAVING A BUILDING, STRUCTURE, OR OTHER INSTALLATION ABOVE OR BELOW GROUND IN PROXIMITY TO THE SITE OF THE WORK OF HIS INTENTION TO USE EXPLOSIVES. NOTICE SHALL BE GIVEN SUFFICIENTLY IN ADVANCE TO ENABLE THE OWNERS TO TAKE STEPS TO PROTECT THEIR PROPERTY. NOTICE SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR DAMAGE RESULTING FROM HIS BLASTING OPERATIONS.
5. THE CONTRACTOR SHALL SCHEDULE AND CONDUCT PRE-BLAST SURVEYS WITH PROPERTY OWNERS LOCATED IN THE AREA POTENTIALLY AFFECTED BY AIRBLAST OVERPRESSURE AND GROUND VIBRATION OR AS REQUIRED. THE CONTRACTOR SHALL IMPLEMENT ENGINEERING MEASURES IN ORDER TO MINIMIZE THE POTENTIAL IMPACTS OF DUST, NOISE AND GROUND VIBRATION. BLAST VIBRATION CONTROL WILL BE ACHIEVED BY LIMITING THE CHARGE PER DELAY SO THAT THE PEAK PARTICLE VELOCITY REMAINS BELOW THE SPECIFIED LEVELS.
6. AN APPROPRIATELY QUALIFIED, LICENSED BLASTING SPECIALIST, WITH EXPERIENCE SHALL BE ONSITE AND SUPERVISE BLASTING OPERATIONS. AT ALL TIMES, THE BLASTING AREA SHALL BE RESTRICTED TO BLASTING OPERATIONS AND AUTHORIZED PERSONNEL ONLY.
7. PROTECTIVE MEASURES INCLUDING INSTALLATION OF SIGNAGE, NOTIFICATION OF NEARBY RESIDENTS, TRAFFIC CONTROL AS NECESSARY ALONG NEARBY ROADS, AUDIBLE PRE-BLAST WARNINGS, AND USE OF BLAST MATS SHALL BE IMPLEMENTED.
8. DELIVERY AND TRANSPORT OF EXPLOSIVES FROM THE POWDER MAGAZINES TO THE BLAST AREA WILL BE BY VEHICLES SPECIFICALLY DESIGNED FOR THIS USE BY THE CRITERIA OUTLINED IN THE SAFETY REQUIREMENTS. ONLY AUTHORIZED PERSONS WILL TRANSPORT AND HANDLE THE EXPLOSIVES AS DESIGNATED BY THE ISSUING AUTHORITY OF THOSE LICENSES FOR THIS PURPOSE.
9. MONITORING OF PEAK PARTICLE VELOCITY (INCHES/SECOND) AND PEAK AIRBLAST OVERPRESSURE (PSI) SHALL BE PERFORMED DURING ALL BLASTS.

LEGEND

- PROPERTY LINE
- ADJOINER PROPERTY LINE
- PROPOSED TREE LINE
- PROPOSED BUILDING
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED FENCE LINE
- 1025.75 PROPOSED SPOT ELEVATION
- TP-1 SEPTIC TEST PIT
- PT-1 SEPTIC PERCOLATION TEST
- SW-1 STORM INFILTRATION TEST
- STORM SYSTEM
- FM PROPOSED SANITARY SEWER FORCE MAIN
- SAN PROPOSED SANITARY SEWER GRAVITY MAIN

NO.	DATE	DESCRIPTION	INT.
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1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

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The Broadway Group Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

STATE OF NEW YORK · LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID: 21-274.02-DY	DRAWN: JAM
DATE: 2023-07-27	DESIGN: DWY
SCALE: AS NOTED	CHECKED: DWY

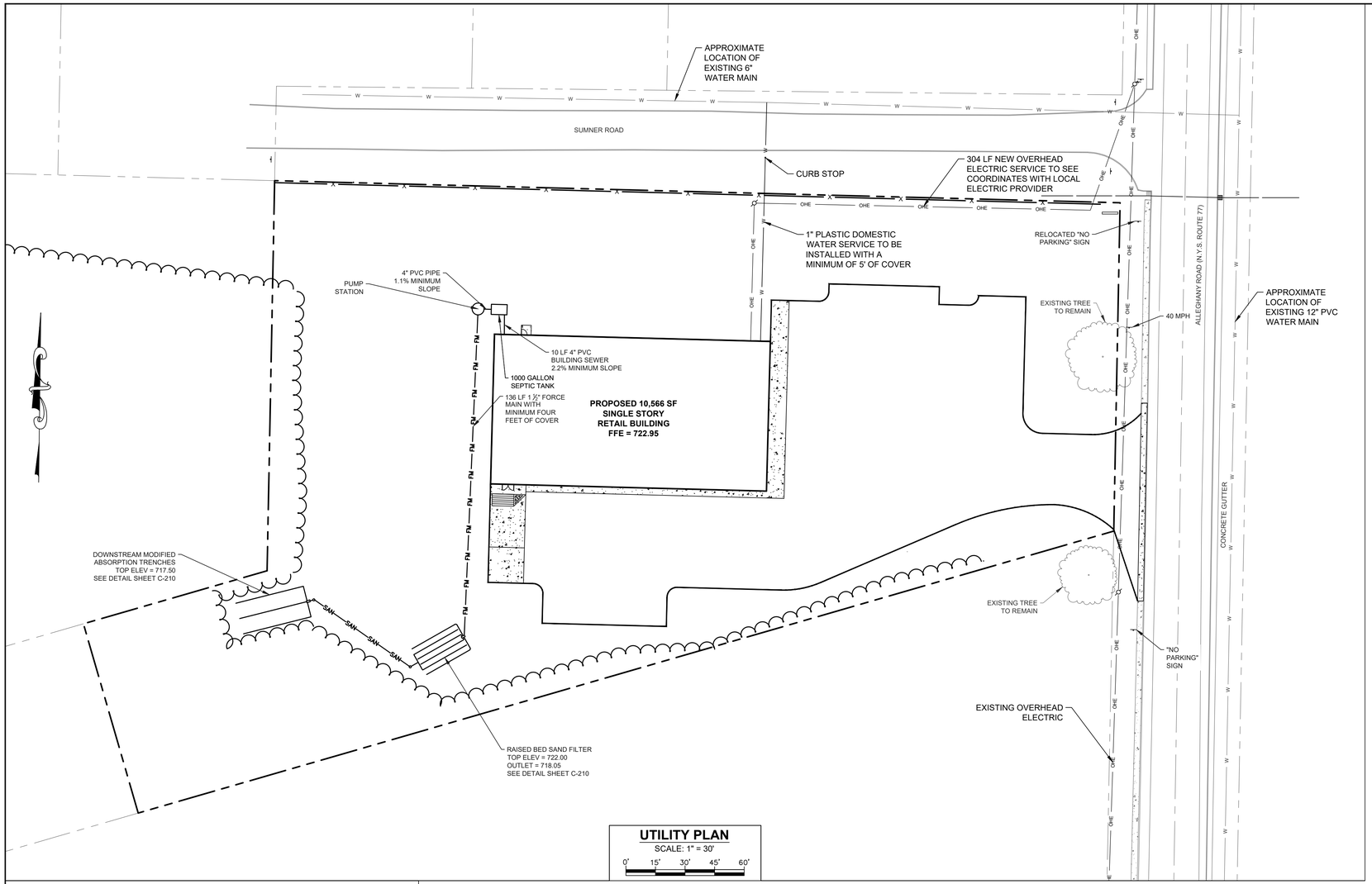
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

GRADING AND DRAINAGE PLAN

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-130



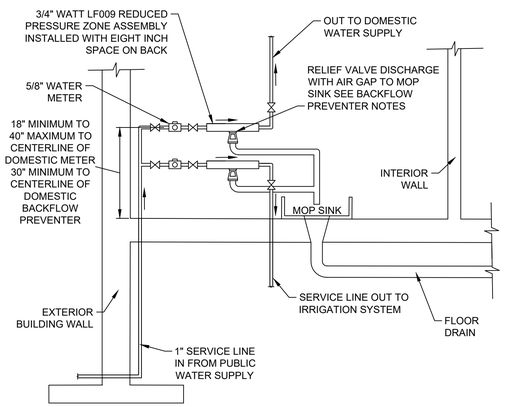
UTILITY PLAN

SCALE: 1" = 30'

0' 15' 30' 45' 60'

LEGEND

- PROPERTY LINE
- ADJOINER PROPERTY LINE
- PROPOSED TREE LINE
- EXISTING CONCRETE
- PROPOSED CONCRETE
- PROPOSED FENCE LINE
- PROPOSED SANITARY SEWER FORCE MAIN
- PROPOSED SANITARY SEWER GRAVITY MAIN
- PROPOSED WATER SERVICE
- PROPOSED STORM DRAINAGE PIPING
- PROPOSED GAS SERVICE
- PROPOSED OVERHEAD ELECTRIC SERVICE

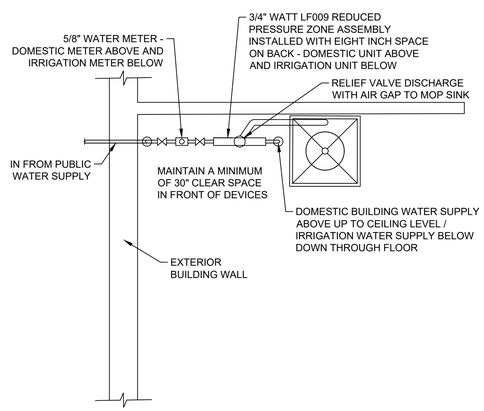


BACKFLOW PREVENTER ELEVATION

SCALE: 1"=2'

BACKFLOW PREVENTER NOTES

1) BACKFLOW PREVENTER SHALL HAVE NO LESS THAN 30 INCHES OF FRONT CLEARANCE FOR DEVICE ACCESS.
2) BACKFLOW PREVENTER SHALL HAVE NO LESS THAN 8 INCHES BETWEEN BACK OF DEVICE AND WALL OR NEAREST OBSTRUCTION.
3) INSTALLED CENTERLINE OF BACKFLOW PREVENTER SHALL BE NO LESS THAN 30 INCHES NOR MORE THAN 60 INCHES ABOVE FINISHED FLOOR ELEVATION.
4) BACKFLOW PREVENTERS SHALL HAVE NO LESS THAN 18 INCHES AND NO MORE THAN 40 INCHES CLEAR BETWEEN BOTTOM OF RELIEF VALVE AND FLOOR TO PREVENT SUBMERSION AND FACILITATE VALVE SERVICING.
5) NO LESS THAN 12 INCHES SHALL REMAIN CLEAR ABOVE DEVICES TO FACILITATE VALVE SERVICE AND TESTING.
6) ALL MATERIAL BEFORE THE BACKFLOW PREVENTER SHALL BE BRASS, COPPER OR CEMENT LINE DUCTILE IRON AND BE MECHANICALLY JOINED.
7) BACKFLOW PREVENTER SHALL BE INSTALLED SO ALL TESTING PORTS WILL BE TOP OF FRONT SIDE OF DEVICE.
8) AIR GAP BETWEEN DISCHARGE OF BACKFLOW DEVICE AND MOP SINK TO BE TWICE THE DIAMETER OF THE EFFECTIVE OPENING OF THE RELIEF VALVE AND A MINIMUM OF ONE INCH.
9) AIR CAP FITTINGS ARE NOT PERMITTED.
10) VICTAULIC FITTINGS SHALL NOT BE USED UPSTREAM OF HE BACKFLOW PREVENTER.



BACKFLOW PREVENTER PLAN

SCALE: 1"=2'

UTILITY PLAN NOTES:

1. ALL UNDERGROUND UTILITIES ARE SHOWN IN THEIR RELATIVE POSITION AND ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY THEIR ACTUAL LOCATION IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. ANY CONDITION ENCOUNTERED IN THE FIELD DIFFERING FROM THOSE SHOWN HEREON, SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE CONSTRUCTION IS TO PROCEED.
3. ALL PROPOSED UTILITIES SHALL TERMINATE FIVE (5) FEET FROM ANY PROPOSED BUILDING FACE. CONTRACTOR TO COORDINATE WITH BUILDING PLANS FOR ANY CONNECTIONS.
4. THE CONTRACTOR SHALL NOTIFY THE TOWN OF ALABAMA WATER SERVICES AT A MINIMUM OF 48 HOURS PRIOR TO STARTING THE CONNECTION FOR THE NEW WATER SERVICE.
5. ALL STORM SEWERS SHALL BE SMOOTH INTERIOR HDPE UNLESS OTHERWISE SPECIFIED.
6. CONTRACTOR TO VERIFY STATUS OF ALL UTILITY SERVICES PRIOR TO INTERRUPTION.
7. EXPLORATORY EXCAVATIONS SHALL BE PERFORMED BY THE CONTRACTOR AT ALL UTILITY CONNECTION LOCATIONS AND AS NEEDED TO VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK.
8. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE FOR THE DURATION OF THE WORK.
9. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND ASSOCIATED CONDITIONS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING UTILITY TRENCHES AND EXCAVATIONS AND FOR THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF THE WORK.
11. IF ROCK REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE TOWN OF ALABAMA.
12. A MINIMUM OF TEN (10) FEET OF HORIZONTAL AND EIGHTEEN (18) INCHES VERTICAL SEPARATION MUST BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER SERVICES.
13. SELECT BACKFILL IS REQUIRED FOR ALL UTILITIES THAT CROSS THROUGH ANY PAVEMENT AREA. SEE BACKFILL NOTE ON C140.

SEPTIC DESIGN NOTES:

1) SEPTIC DESIGN FLOW = 60 GALLONS PER DAY (GPD) BASED ON PREVIOUS DEVELOPMENT EXPERIENCE BY THE DEVELOPER.
2) SITE PERCOLATION TESTS COMPLETED BY TERRACON ON MAY 15, 2023. PERCOLATION RATES WERE FOUND TO BE BETWEEN 0 AND 0.25 INCHES PER HOUR. ADDITIONAL PERCOLATION TESTS WERE COMPLETED AT THE SURFACE BY WMB GEOLOGIC & ENGINEERING SERVICES, DPC.
3) SITE DEEP TEST COMPLETED BY TERRACON ON MAY 15, 2023. SOILS WERE FOUND TO BE CHANNERY SILT LOAM IN NATURE AND GENERALLY CONSISTENT WITH THE SOIL SURVEY.
4) SEPTIC TANK SIZE FOR A 60 GPD SYSTEM = 1,000 GALLONS.
5) DUE TO THE POOR SUBSURFACE SOILS TESTING RESULTS, A RAISED BED SAND FILTER HAS BEEN DESIGNED FOR THE SITE WITH A DOWNSTREAM MODIFIED APPSORPTION TRENCHES SYSTEM.
6) MAINTAIN TEN FOOT SEPARATION BETWEEN SEPTIC SYSTEM PIPING AND THE BUILDING WATER FEED PIPING.
7) MAINTAIN A TEN FOOT SEPARATION BETWEEN THE SEPTIC TANK AND THE BUILDING.

WATER NOTES:

1) WATER DEMAND IS ANTICIPATED TO BE 60 GALLONS PER DAY BASED ON PREVIOUS DEVELOPMENT EXPERIENCE BY THE DEVELOPER.
2) FIVE FEET OF COVER MUST BE MAINTAINED OVER ALL WATER LINES.
3) THE TOWN OF ALABAMA IS TO BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO STARTING THE CONNECTION FOR A NEW WATER SERVICE.
4) RETAINING GLANDS ARE REQUIRED ON ALL WATERLINE FITTINGS.

APPROVED BY: _____ GENESEE COUNTY WATER AUTHORITY

DATE: _____

NO	DATE	DESCRIPTION	INT.
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Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

STATE OF NEW YORK · DAVID W. YOUNG · 071156 · LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONAL FIRM:

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284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID:	DRAWN:
21-274.02-DY	JAM
DATE:	DESIGN:
2023-07-27	DWY
SCALE:	CHECKED:
AS NOTED	DWY

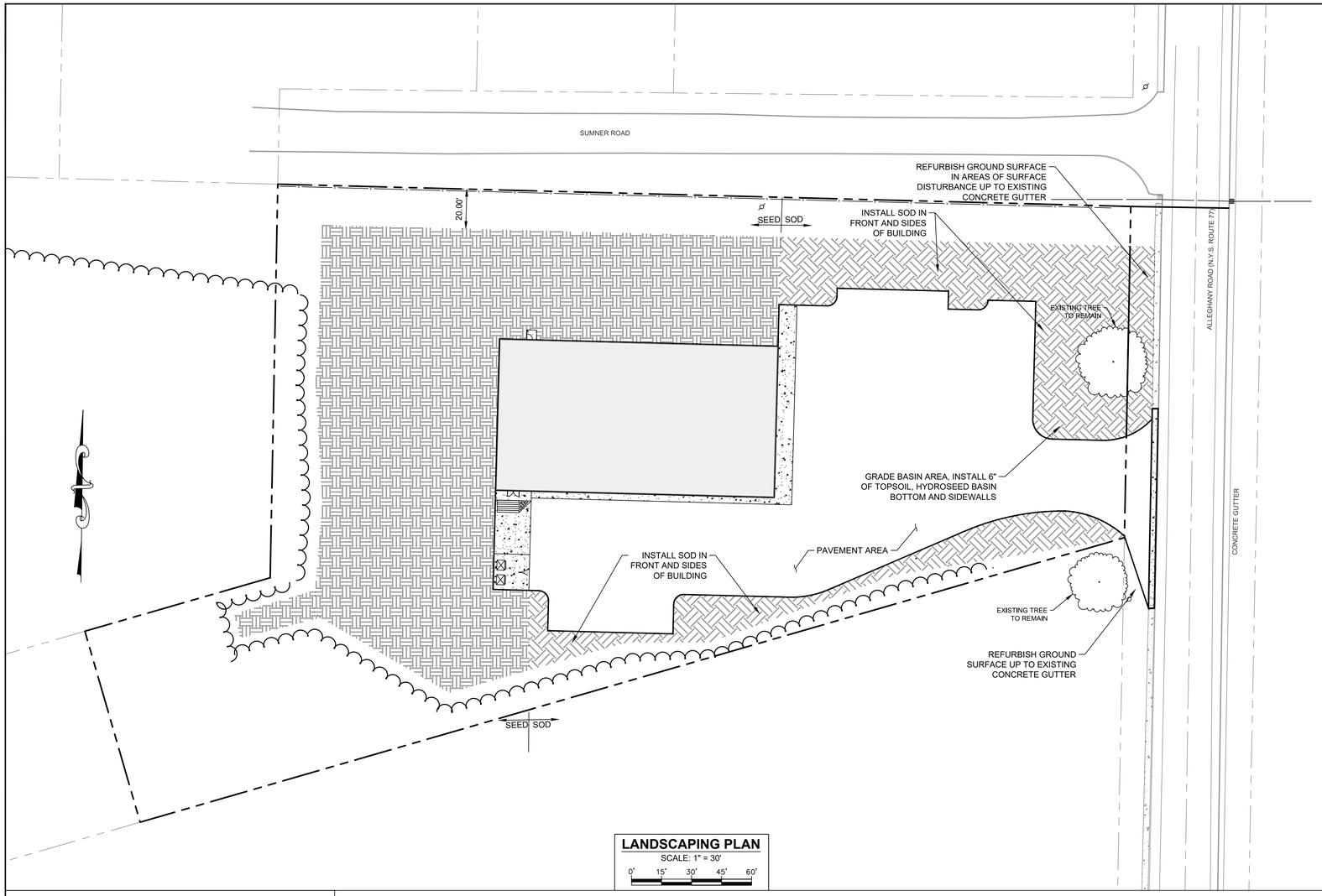
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

UTILITY PLAN

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-140



LANDSCAPING PLAN
SCALE: 1" = 30'
0' 15' 30' 45' 60'

LEGEND

- LOD LOD — LIMITS OF EARTH DISTURBANCE
- PROPERTY LINE
- ADJOINER PROPERTY LINE
- PROPOSED TREE LINE
- EXISTING CONCRETE
- PROPOSED CONCRETE
- AREA OF SOD INSTALLATION
- AREA OF GRASS SEEDING

LANDSCAPING NOTES

GRADING:

1) CONTRACTOR TO GRADE ALL AREAS SHADED IN THE PLAN, INCLUDING ROW.
2) TOP SOIL SHALL BE STRIPPED FROM ALL CUT AND FILL AREAS, STOCKPILED AND REDISTRIBUTED OVER GRADED AREAS. PROVIDE EROSION AND SEDIMENTATION CONTROLS AROUND STOCKPILES DURING CONSTRUCTION.
3) TILL SOIL TO A DEPTH OF 4" MINIMUM.
4) REMOVE ALL ROCKS LARGER THAN 1" MEASURED IN LARGEST DIRECTION.
5) GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
6) ALL GRADED AREAS TO RECEIVE SEED OR SOD, TOP SOIL, STRAW AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
7) REFER TO SHEET C130 FOR MAXIMUM SLOPES.

LAWN SEEDING AND SODDING:

1) ALL LAWNS FROM FACE OF THE BUILDING AND ON THE SIDE WHERE THERE IS PARKING OR A STREET ARE REQUIRED TO BE FULLY SODDED. ALL OTHER LANDSCAPE AREAS TO RECEIVE SEED.
2) AREAS TO RECEIVE SEED OR SOD SHALL BE CLEAN OF DEBRIS AND FREE OF WEEDS.
3) SEED MIX TO BE DROUGHT TOLERANCE FESCUE OR REGIONAL SPECIFIC BLEND. 41 TO 31 OF THE SEED MIXTURE TO BE ANNUAL RYE TO AIDE IN LIMITING EROSION OF PERENNIAL SEED DURING GERMINATION.
4) STRAW SHALL BE THRESHED STRAW OF HAY, OATS, WHEAT, BARLEY, OR RYE. SPREAD AT A RATE OF 2 1/2 TONS PER ACRE. STRAW, NETTING, AND OTHER ANTI-EROSION MATERIALS TO BE REMOVED AFTER ESTABLISHED LAWN.
5) MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER SEEDING. WATER REGULARLY TO KEEP LAWN AREAS MOIST TO MAXIMIZE GERMINATION AND MAINTAIN OPTIMUM GROWTH AND SURVIVAL TO ACHIEVE AN ACCEPTABLE STAND OF ESTABLISHED LAWN PRIOR TO THE STORE POSSESSION DATE, FREE OF ERODED OR BARE AREAS.

LANDSCAPING:

1) PROVISIONS FOR LOCAL AND/OR REGIONAL REQUIREMENTS, ARE NOT SHOWN ON THESE DRAWINGS. DEVELOPER SHALL PROVIDE LANDSCAPING IN ACCORDANCE WITH JURISDICTION REQUIREMENTS.
2) ALL SOIL USED FOR PLANTING SHALL CONSIST OF REGIONALLY APPROPRIATE SOILS.
3) ALL PLANTING BEDS SHALL HAVE A MINIMUM 3" DEPTH OF MULCH, WITH EDGING AS REQUIRED.
4) ALL TREES LOCATED IN SOD AREAS SHALL HAVE A MULCH RING AROUND THEM WITH EDGING AS REQUIRED.
5) ALL PLANTINGS SHALL BE THOROUGHLY WATERED BY THE LANDSCAPE CONTRACTOR AT THE TIME OF THE PLANTINGS.
6) PRIOR TO FINAL ACCEPTANCE OF STORE BY DOLLAR GENERAL, THE SITE SHALL BE CLEAN OF ALL DEBRIS AND TRASH, AND MEET ALL REQUIREMENTS OUTLINED IN SECTIONS A-C ABOVE.
7) MAXIMUM SLOPE CUTS SHALL NOT EXCEED 4:1. ALL DISTURBED GRADES GREATER THAN 8:1 SHALL BE STABILIZED BY SODDING. SODDING PINS ARE TO BE USED ON ALL 4:1 GRADES.

IRRIGATION:

1) ALL LANDSCAPE AREAS AND LAWNS ADJACENT TO PAVED AREAS AND/OR STREETS ARE TO BE FULLY IRRIGATED.
2) IRRIGATION SYSTEM TO INCLUDE ALL SPRAY HEADS, VALVES AND CONTROLLERS.
3) A SEPARATE METER AND BACKFLOW PREVENTER WILL BE REQUIRED.
4) LOCATE HEAD A MINIMUM OF 2'-0" FROM EDGE OF PAVEMENT/CURB.
5) LOCATE RAINBIRD CONTROL PANEL IN RECEIVING AREA NEXT TO ELECTRICAL PANELS.

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21-274.02-DY	JAM
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AS NOTED	DWY

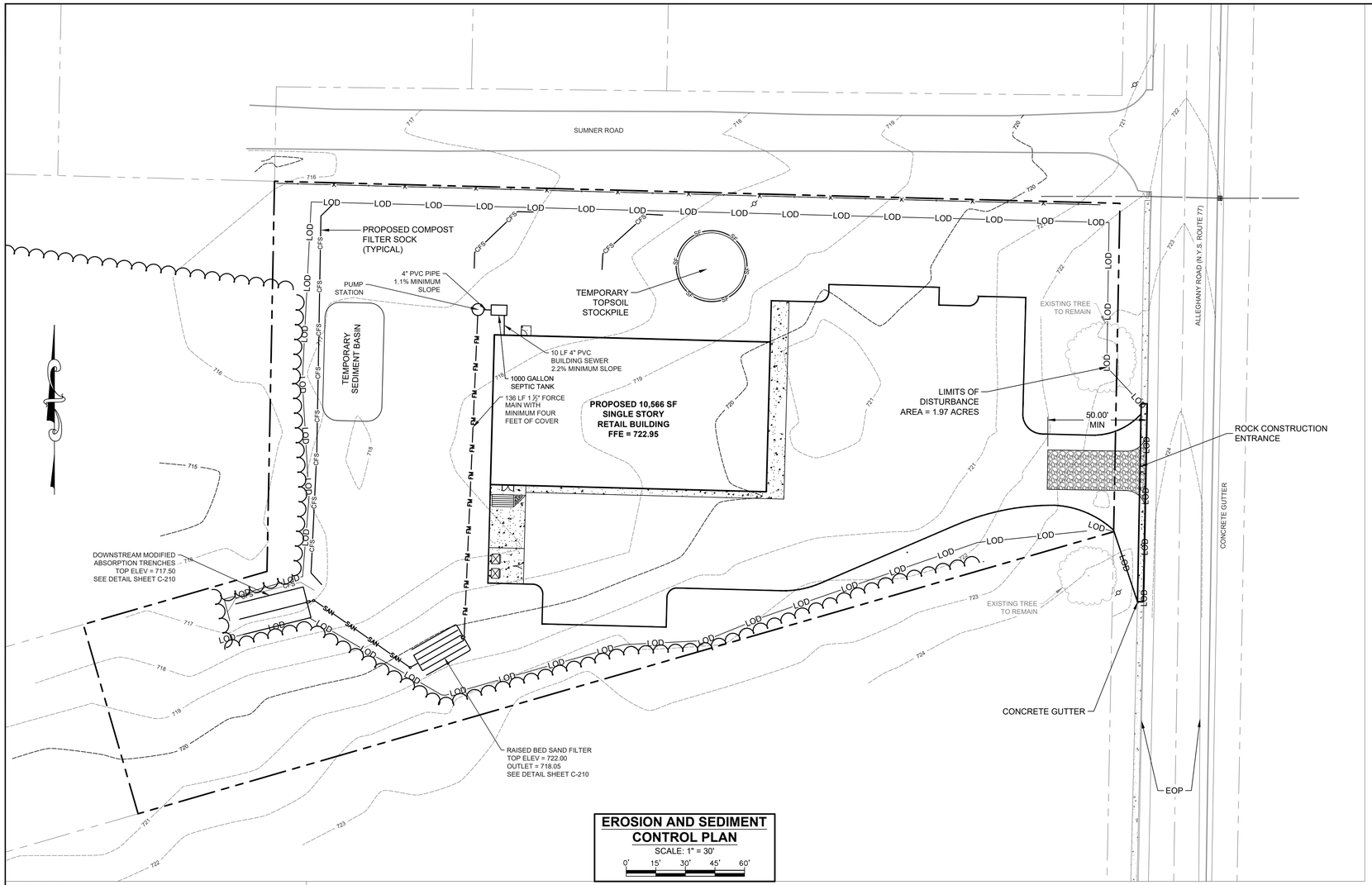
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

LANDSCAPING PLAN

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-150



EROSION AND SEDIMENT CONTROL PLAN
SCALE: 1" = 30'
0' 15' 30' 45' 60'

LEGEND:

- PROJECT PROPERTY LINE
- ADJOINER PROPERTY LINE
- UTILITY POLE
- WATER MAIN
- PROPOSED TREE LINE
- LIMITS OF DISTURBANCE
- PROPOSED CONCRETE
- PROPOSED COMPOST FILTER SOCK
- PROPOSED SILT FENCE

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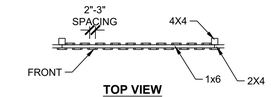
GENESEE COUNTY, NY

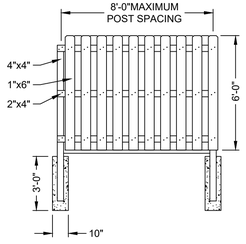
DRAWING TITLE:

EROSION AND SEDIMENT CONTROL PLAN

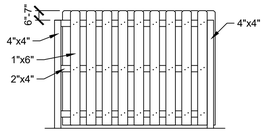
PLAN STATUS:	SHEET NUMBER:
DESIGN	C-160



TOP VIEW



FRONT VIEW

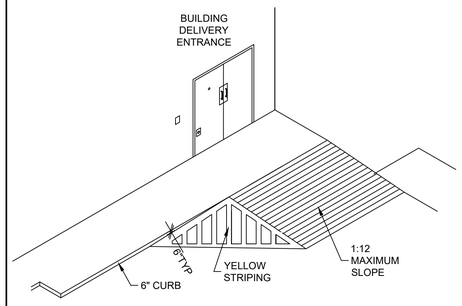


REAR VIEW

NOTE: NUMBER OF BOARDS WILL VARY DEPENDING ON SPACE BETWEEN BOARDS AND ACTUAL WIDTH OF BOARDS

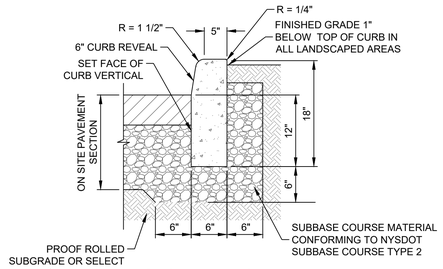
STRAIGHT SHADOWBOX PRIVACY FENCING

TREATED PINE (USE GALVANIZED NAILS FOR FASTENING)



LOADING RAMP

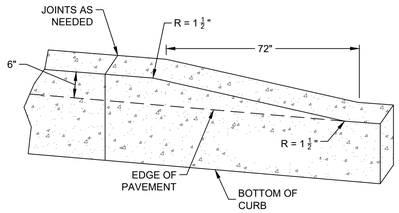
SCALE: NOT TO SCALE



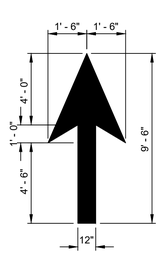
CAST IN PLACE CONCRETE CURB

SCALE: NOT TO SCALE

NOTES:
1) CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 609.

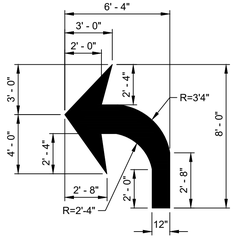


CAST-IN-PLACE CONCRETE CURB TRANSITIONS



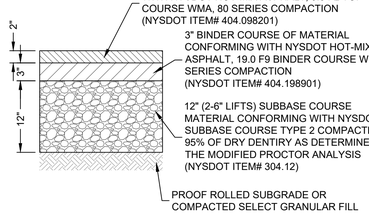
DIRECTIONAL ARROW PAVEMENT MARKING

SCALE: NOT TO SCALE



DIRECTIONAL ARROW PAVEMENT MARKING

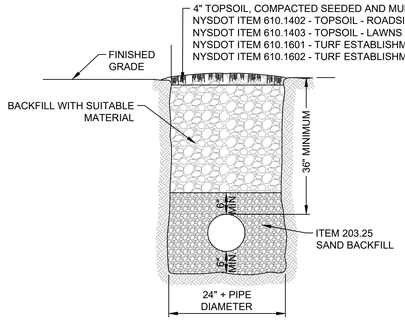
SCALE: NOT TO SCALE



NYSDOT PAVEMENT SECTION

SCALE: NOT TO SCALE

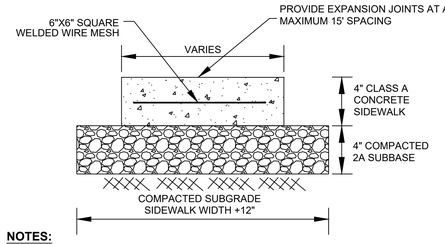
NOTES:
1) A TACK COAT SHALL BE APPLIED PRIOR TO EVERY ASPHALT LAYER IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS



NYSDOT ROW EXCAVATION / RESTORATION OUTSIDE OF PAVEMENT AND SHOULDER

NOT TO SCALE

NOTES:
1) BACKFILL OF SUITABLE MATERIAL SHALL BE COMPACTED IN MAXIMUM 6" LIFTS
2) ALL DISTURBED WORK AREAS SHALL BE MULCHED OR HAVE TURF ESTABLISHED WITHIN 10 DAYS
3) ALL WORK SHALL CONFORM TO NYSDOT SPECIFICATIONS

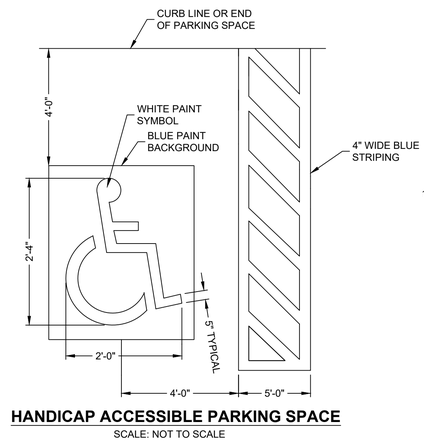


NOTES:

1) EXPANSION JOINTS TO BE 1/2" PREMOLDED EXPANSION JOINT MATERIAL FOR FULL DEPTH OF SIDEWALK.
2) EXPANSION JOINTS TO BE PLACED BETWEEN ADJACENT SECTIONS OF SIDEWALK AND BETWEEN SIDEWALK AND CURB.
3) INTEGRAL SIDEWALK AND CURB WILL BE ACCEPTABLE AFTER APPROVAL OF CONSTRUCTION METHOD BY ENGINEER AND OR OWNER.
4) PLACE TRAVERSE DUMMY JOINTS AT 5-FOOT INTERVALS, APPROXIMATELY 1/8" WIDE AND A MINIMUM OF 1 INCH DEEP.

REINFORCED CONCRETE SIDEWALK

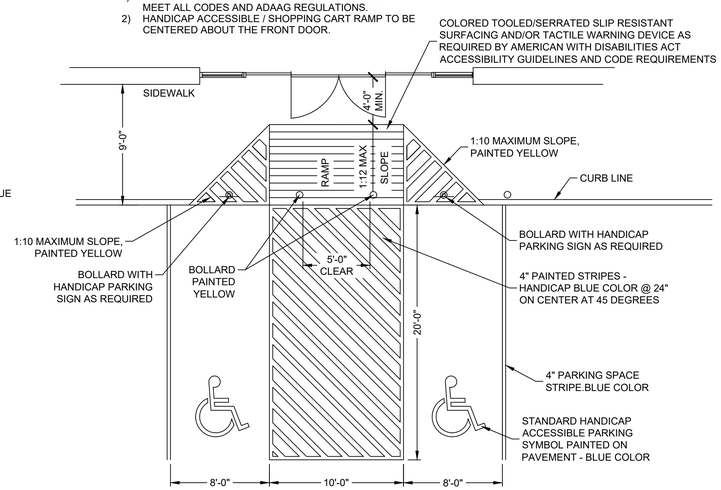
NOT TO SCALE



HANDICAP ACCESSIBLE PARKING SPACE

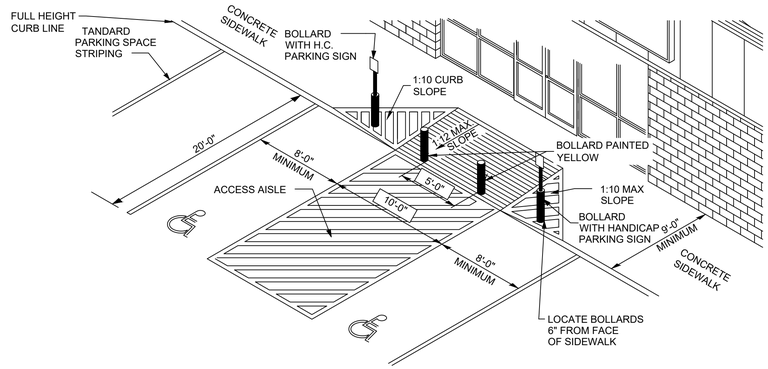
SCALE: NOT TO SCALE

NOTES:
1) ALL HANDICAPPED RAMP AND ACCESS AISLES SHALL MEET ALL CODES AND ADAAG REGULATIONS.
2) HANDICAP ACCESSIBLE / SHOPPING CART RAMP TO BE CENTERED ABOUT THE FRONT DOOR.



HANDICAP ACCESSIBLE PARKING AND ACCESS

SCALE: NOT TO SCALE



HANDICAP ACCESSIBLE PARKING AND ACCESS

SCALE: NOT TO SCALE

PAVEMENT DETAILS

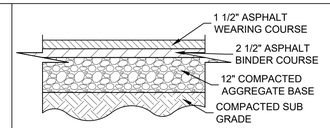
1. DETAILS ARE DOLLAR GENERAL STANDARD REQUIREMENTS AND MAY INCREASE OR DECREASE WITH VARIOUS SOIL CONDITIONS. A GEOTECHNICAL INVESTIGATION WITH PAVEMENT DESIGN RECOMMENDATIONS SHALL BE COMPLETED FOR EACH DEVELOPMENT. THE FOLLOWING DETAILS ARE MINIMUM DOLLAR GENERAL PAVEMENT REQUIREMENTS.
INCREASED RECOMMENDATIONS ARE TO BE USED.

2. THE SUBGRADE MATERIALS SHALL BE PROOF ROLLED AND/OR SCARIFIED AND COMPACTED PRIOR TO PLACEMENT
OF BASE MATERIAL. WHERE EXISTING SUBGRADE MATERIALS ARE UNSUITABLE, THEY SHALL BE REMOVED AND
REPLACED WITH COMPACTED SELECT MATERIAL IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.

3. HEAVY DUTY CONCRETE PAVEMENT AND STANDARD DUTY CONCRETE PAVEMENT (AS RECOMMENDED BY THE
GEOTECHNICAL REPORT OR DOLLAR GENERAL MINIMUMS) SHALL BE STEEL REINFORCED. REINFORCEMENT TYPE
SHALL BE PRIOR APPROVED BY DOLLAR GENERAL.

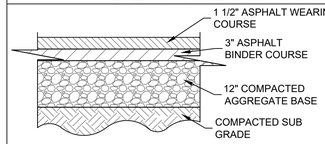
4. CONCRETE PAVEMENT PLAN SHALL BE PROVIDED TO DOLLAR GENERAL FOR PRIOR APPROVAL. ALL JOINTS MUST BE
SEALED WITH AN APPROVED SEALANT. STEEL REINFORCING SHALL BE USED AT JOINTS. REFER TO ACI 330R (GUIDE
FOR DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS) FOR JOINT DESIGN AND LAYOUT.

ASPHALT PAVEMENT



STANDARD DUTY ASPHALT

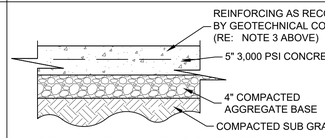
SCALE: NOT TO SCALE



HEAVY DUTY ASPHALT

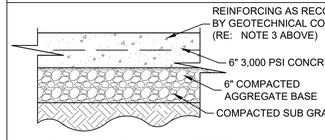
SCALE: NOT TO SCALE

CONCRETE PAVEMENT



STANDARD DUTY CONCRETE

SCALE: NOT TO SCALE



HEAVY DUTY CONCRETE

SCALE: NOT TO SCALE

NO	DATE	DESCRIPTION	INT
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

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DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID:	DRAWN:
21-274.02-DY	JAM
DATE:	DESIGN:
2023-07-27	DWY
SCALE:	CHECKED:
AS NOTED	DWY

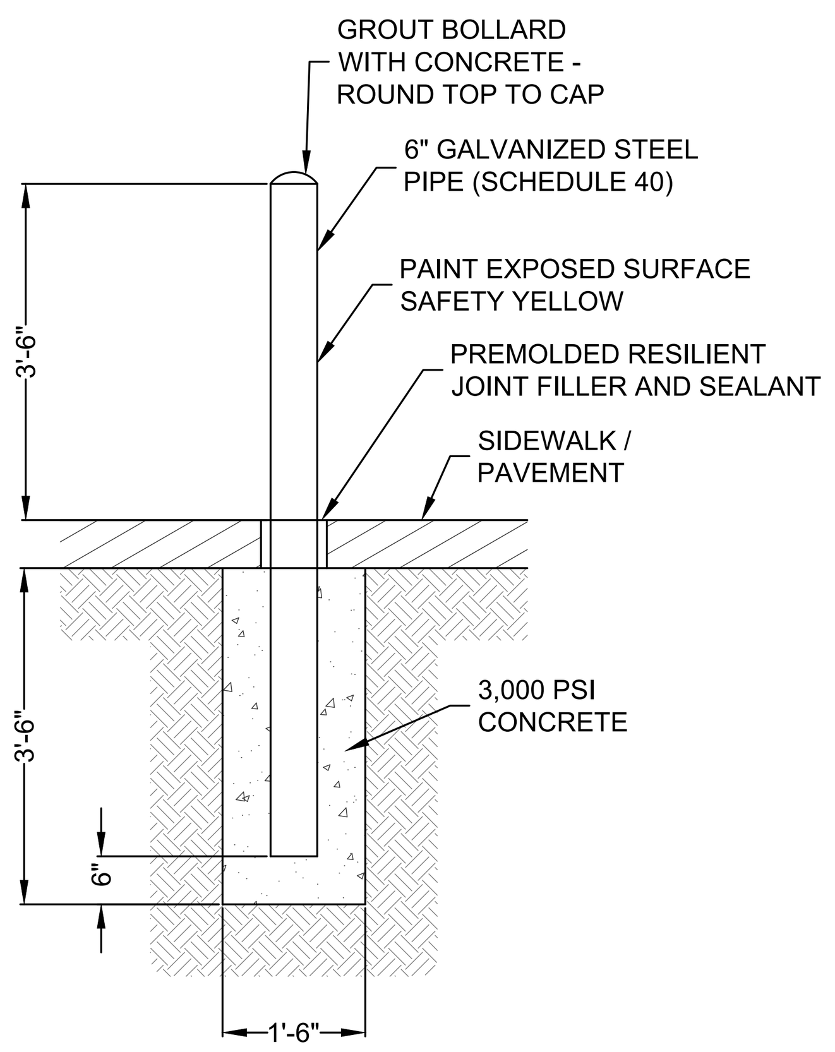
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

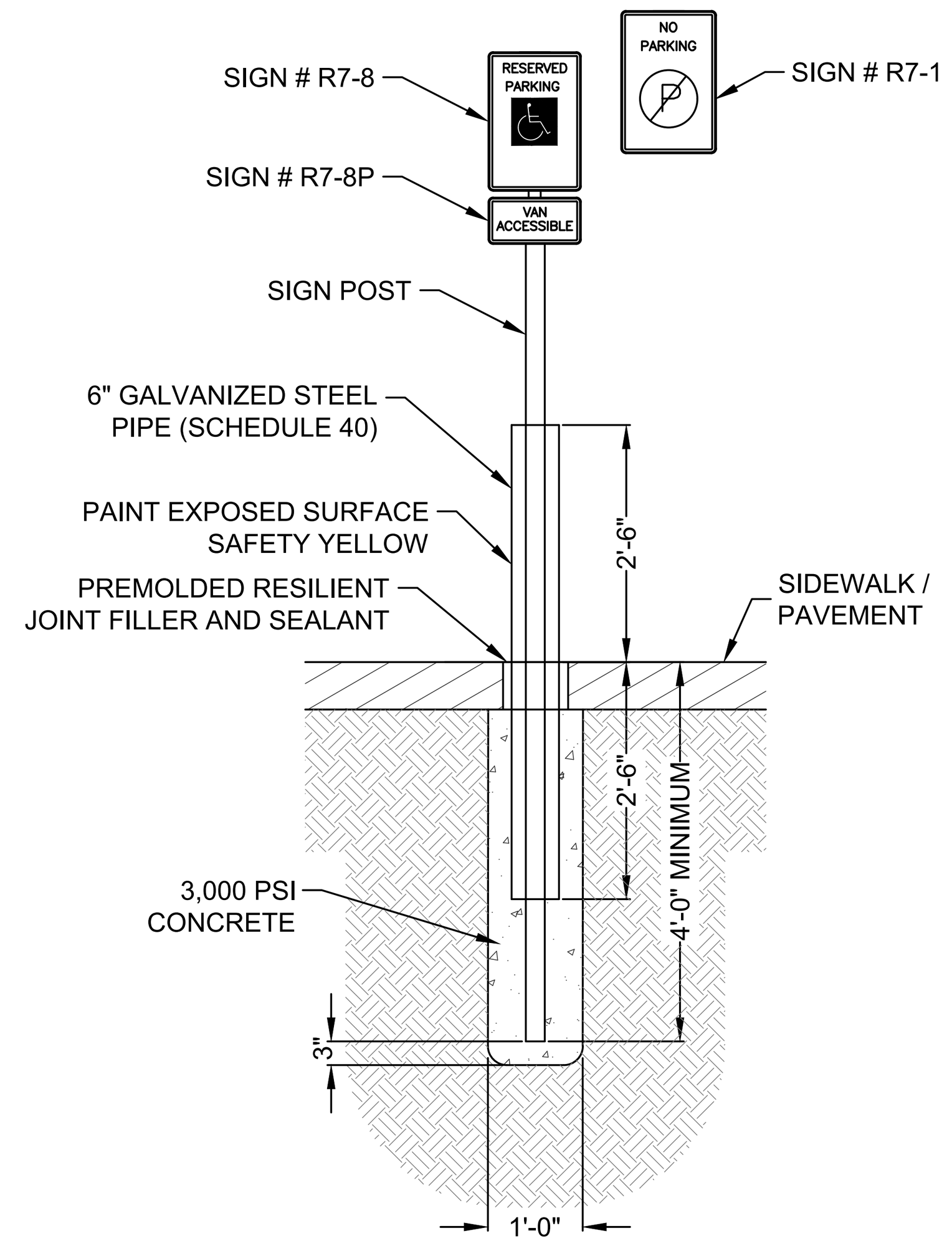
DRAWING TITLE:

SITE DETAILS

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-200

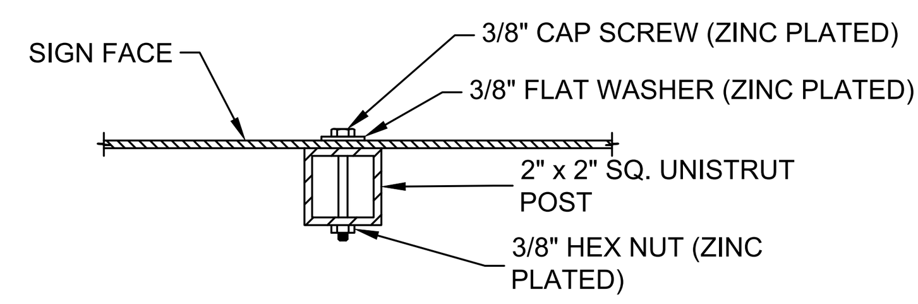


STEEL PIPE BOLLARD
NOT TO SCALE

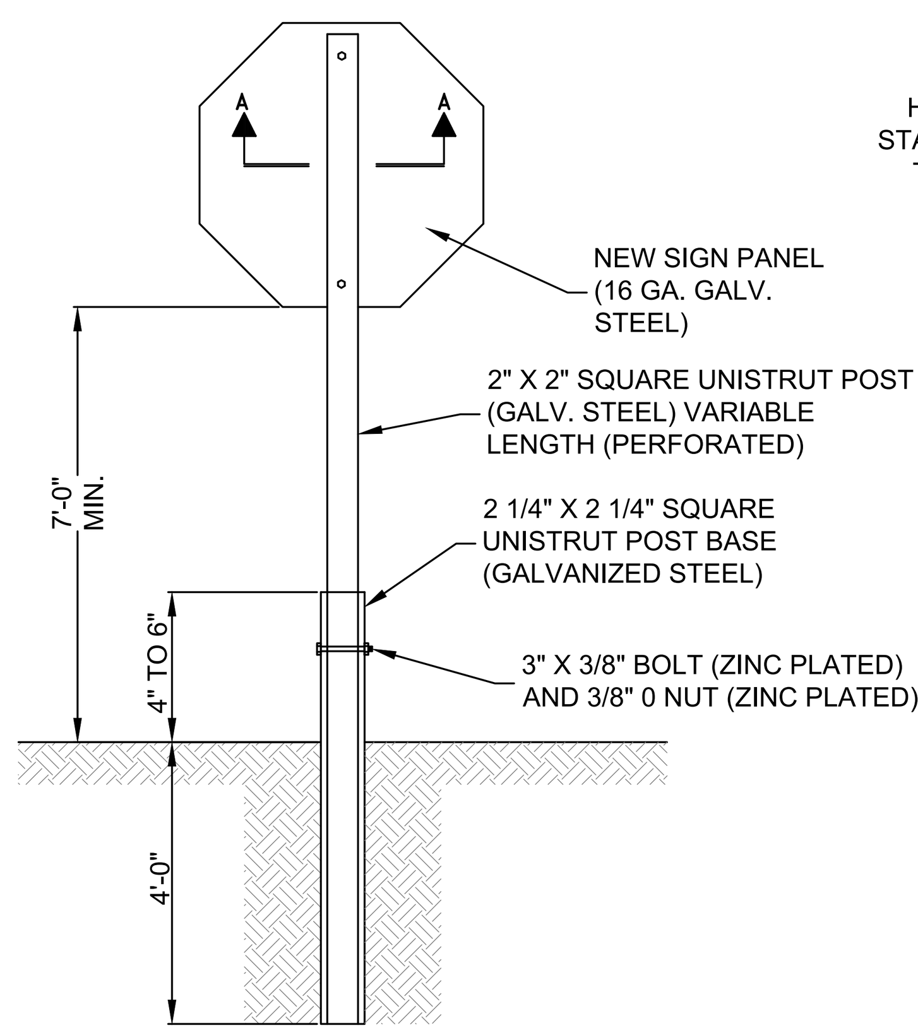


SPECIAL PARKING SIGN
NOT TO SCALE

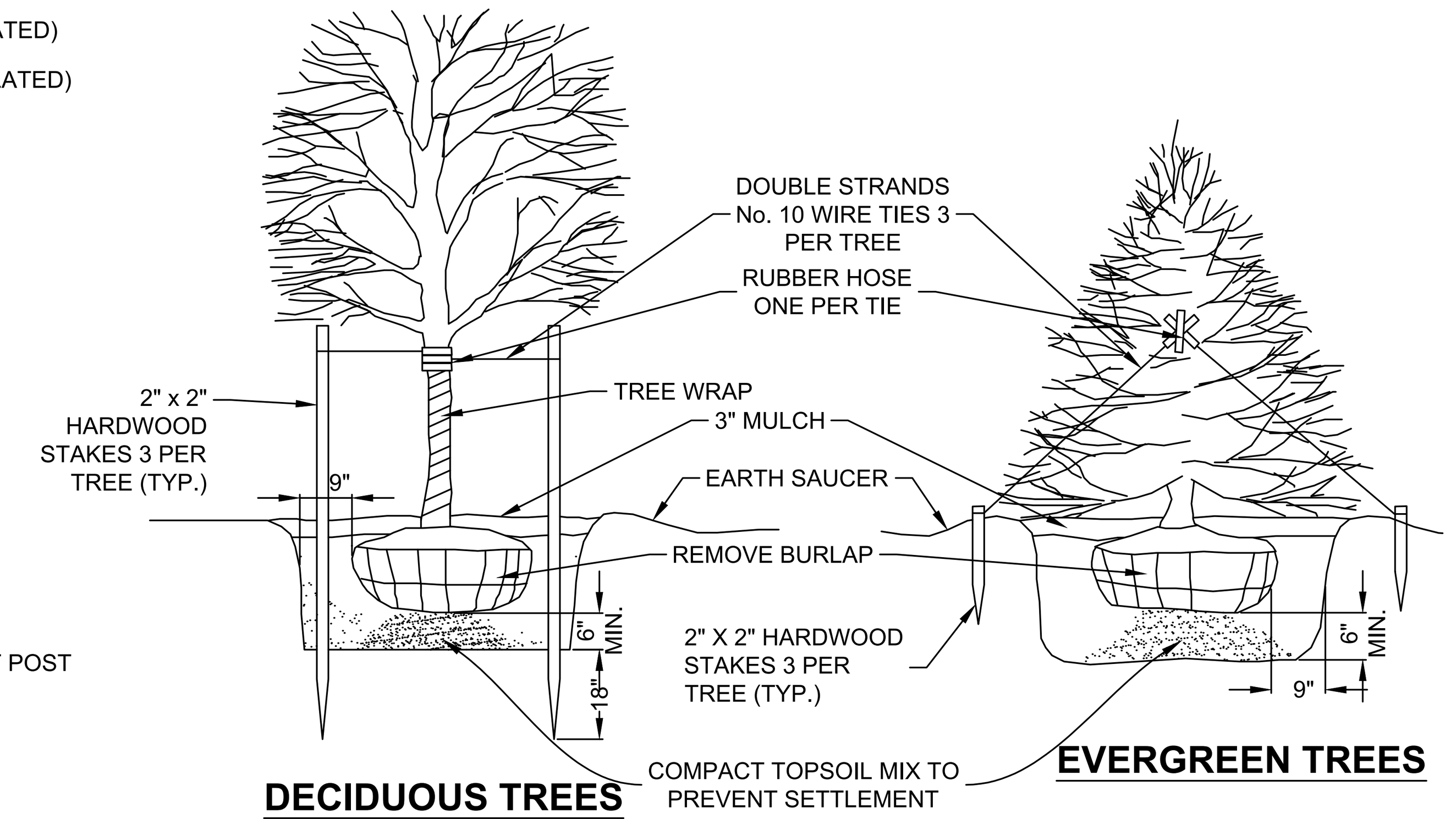
NOTES:
1. ONE SIGN TO BE INSTALLED AT EACH ACCESSIBLE PARKING SPACE.
2. INSTALL AT LOCATIONS SHOWN ON SITE PLAN DRAWINGS



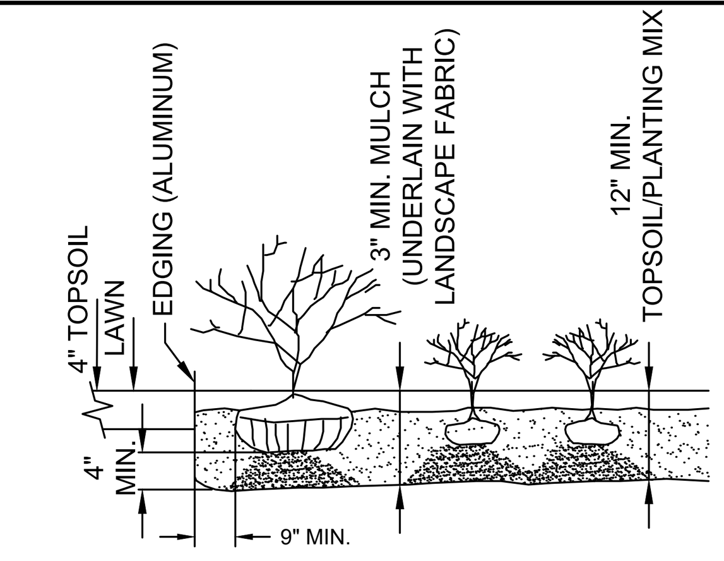
SECTION A - A



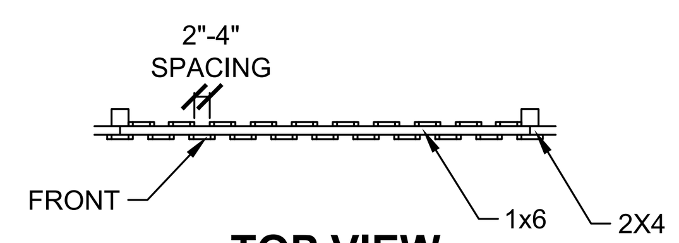
POST MOUNT SIGN INSTALLATION IN SOIL
NOT TO SCALE



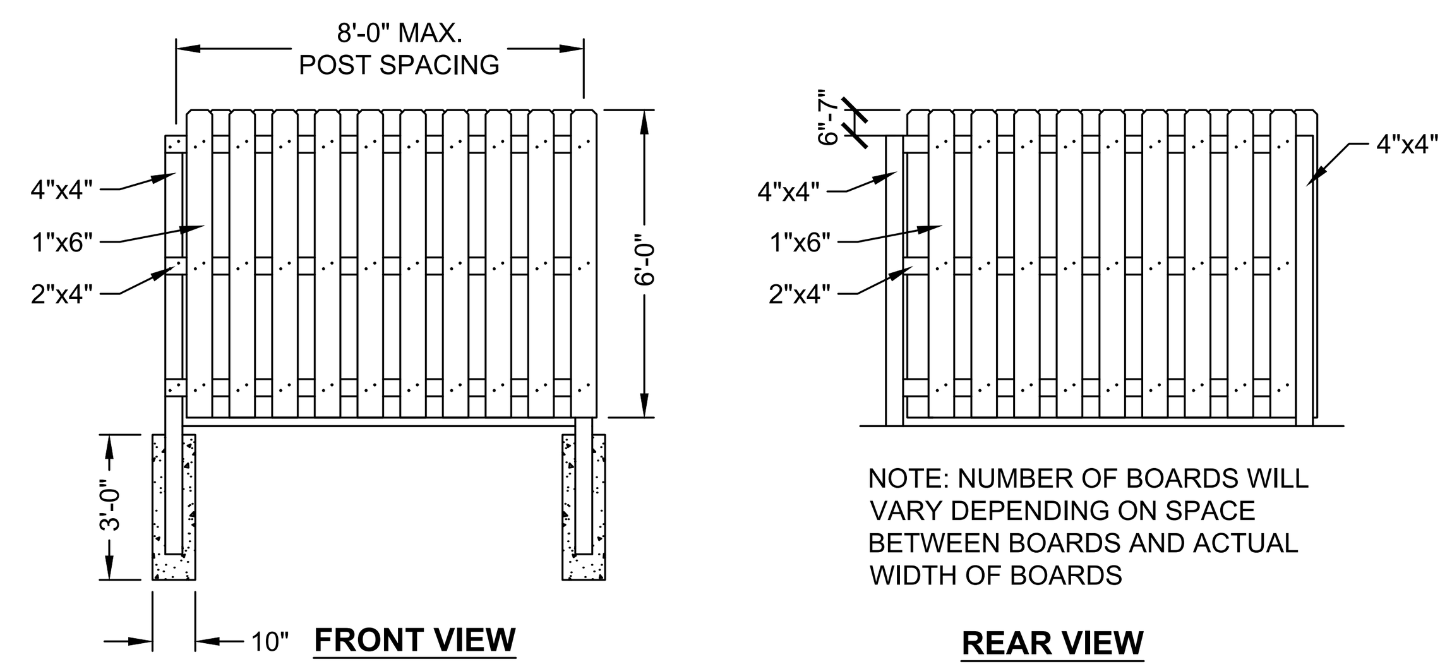
TREE AND SHRUB PLANTING
NOT TO SCALE



SHRUB AND PLANTING BEDS

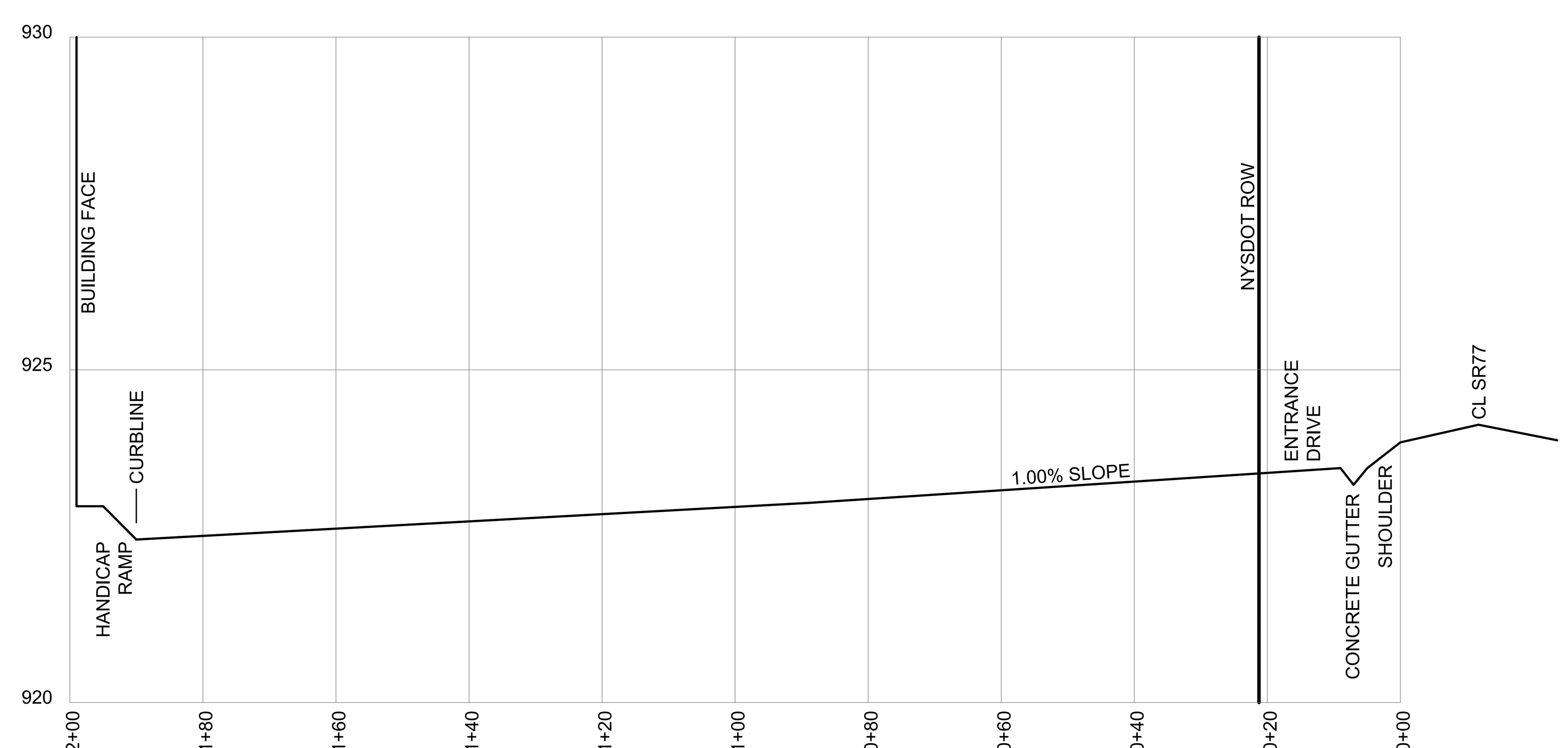


TOP VIEW

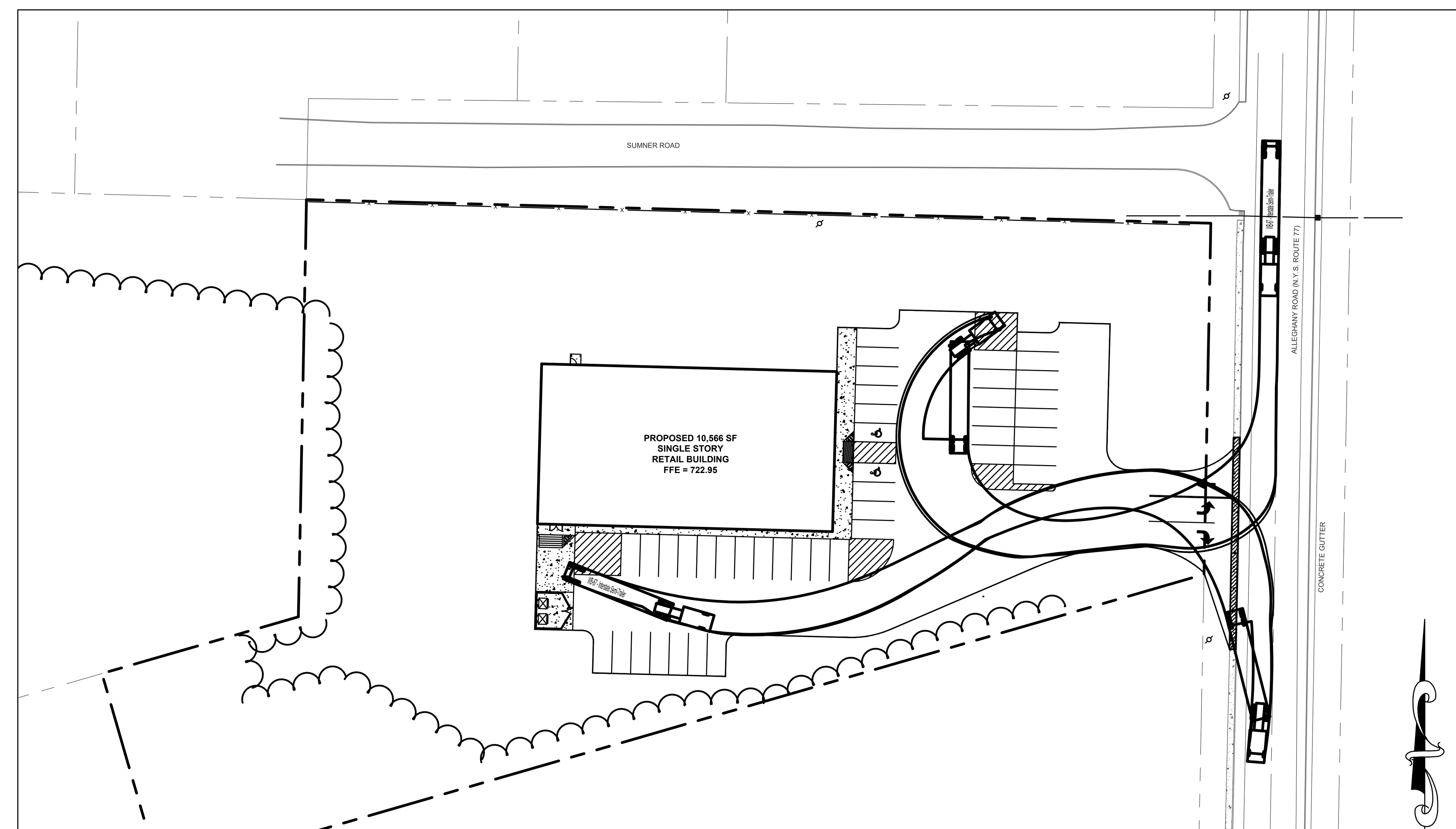


FRONT VIEW **REAR VIEW**

STRAIGHT SHADOWBOX PRIVACY FENCING
TREATED PINE (USE GALVANIZED NAILS FOR FASTENING)



PROPOSED DRIVE PROFILE (CENTERLINE)
VERTICAL SCALE: 1" = 1'
HORIZONTAL SCALE: 1" = 10'



TRUCK TURNING TEMPLATE
SCALE: 1" = 50'

NOTE:
1. TURNING MOVEMENTS SHOWN BASED ON AASHTO DESIGN VEHICLE WB-67.

NO.	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

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WAVERLY, NY 14892
607-565-9800

PROJECT ID: **21-274.02-DY**	DRAWN: **JAM**
DATE: **2023-07-27**	DESIGN: **DWY**
SCALE: **AS NOTED**	CHECKED: **DWY**

PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

SITE DETAILS

PLAN STATUS:	SHEET NUMBER:
DESIGN	**C-201**

GENERAL NOTES

1. THE TYPICAL DETAILS DEPICTED ON THE STANDARD SHEETS AND IN THE MUTCD, REFLECT THE MINIMUM REQUIREMENTS.
2. PROPOSED REVISIONS TO THE TRAFFIC CONTROL PLAN SHALL BE PROVIDED, IN WRITING, TO THE DOT ENGINEER FOR REVIEW AND APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE FIVE (5) WORK DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE SCOPE OF THE TRAFFIC CONTROL PLAN. SUCH CHANGES IN SCOPE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE THIRTY (30) WORKING DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISIONS.
3. THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF STAFF WHO ARE AUTHORIZED TO SECURE LABOR, MATERIALS, AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE NORMAL WORKING HOURS SHALL BE PROVIDED, IN WRITING, TO THE DOT ENGINEER. THE ENGINEER WILL PROVIDE THE SUBMITTED INFORMATION TO REGIONAL MANAGEMENT, THE NEW YORK STATE POLICE, THE RESIDENT ENGINEER, AND THE LOCAL POLICE.
4. STANDARD SHEET 619-503 MAY BE USED FOR AN OFFSITE DETOUR SETUP FOR BOTH LONG TERM AND SHORT TERM WORK DURATIONS.
5. FOLLOW REGIONAL HIGH-VOLUME RESTRICTIONS. CONSULT WITH DOT ENGINEER IF EXCEPTION NEEDED.
6. PLAN AHEAD TO AVOID CONFLICTING WORK ZONES. CHECK FOR CONSTRUCTION PROJECTS, CLOSURES, & RESTRICTIONS AT WWW.511NY.ORG, WWW.DOT.NY.GOV/PROJECTS, AND WITH DOT ENGINEER.
7. DOCUMENT AND REPORT WORK ZONE INCIDENTS USING EITHER THE DEPARTMENT'S WORK ZONE INCIDENT FORM, OR THE CONSTRUCTION INCIDENT REPORTING SYSTEM, AS APPROPRIATE.
8. CONSIDER CLOSURE WIDTH & CLEAR WIDTH FOR WIDE VEHICLES ON WIDE LOAD ROUTES.

ACTIVITY AREA

1. A 500' MINIMUM LONGITUDINAL DISTANCE SHALL BE MAINTAINED BETWEEN CONSTRUCTION OPERATIONS ON ALTERNATE SIDES OF THE ROADWAY, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. WHEN TWO OR MORE AREAS ARE ADJACENT, OVERLAP, OR ARE IN CLOSE PROXIMITY, THE CONTRACTOR SHALL ENSURE THERE ARE NO CONFLICTING SIGNS AND THAT LANE CONTINUITY IS MAINTAINED THROUGHOUT ALL WORK AREAS.

SIGNS

1. THE LOCATIONS OF THE SIGNS SHOWN ON THE WORK ZONE TRAFFIC CONTROL PLANS AND DETAILS MAY BE ADJUSTED BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS. THE FINAL LOCATIONS OF SIGNS ARE SUBJECT TO APPROVAL OF THE ENGINEER.
2. FOR LONG TERM WORK DURATIONS, ANY EXISTING SIGNS, INCLUDING OVERHEAD SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGN LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET, AS APPROVED BY THE ENGINEER. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THIS CONTRACT.
3. SIGNS AT OR NEAR INTERSECTIONS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT A MOTORIST'S LINE OF SIGHT.
4. SIGNS MOUNTED ON THE MEDIAN OF DIVIDED HIGHWAYS WHERE MEDIAN BARRIER IS IN PLACE MAY BE MOUNTED ON THE BARRIER WITH A SADDLE TYPE BRACKET OR OMMITED WITH THE APPROVAL OF THE DOT ENGINEER. LAYING THE SIGN DOWN IN A HORIZONTAL POSITION IS NOT PERMITTED.
5. THE DIMENSIONS OF WORK ZONE TRAFFIC CONTROL SIGNS ARE DESCRIBED IN THE MUTCD. ANY CHANGES TO THE DIMENSIONS SHALL BE APPROVED BY THE REGIONAL DIRECTOR OR BY HIS/HER DESIGNEE.
6. NYR9-12 SHALL BE USED IN PLACE OF NYR9-11 WHEN A REDUCED REGULATORY SPEED LIMIT SIGN IS AUTHORIZED.
7. RIGID AND FLEXIBLE "ROLL-UP" SIGNS MAY BE USED FOR MOBILE, SHORT DURATION AND SHORT-TERM STATIONARY WORK. RIGID SIGNS MUST BE MOUNTED AT LEAST 5 FEET ABOVE GRADE (7 FEET WHERE THERE ARE PEDESTRIANS OR PARKED CARS). FLEXIBLE SIGNS SHALL BE MOUNTED AT LEAST ONE FOOT ABOVE GRADE. MESH SIGNS SHALL NOT BE USED. USE RETRO REFLECTORIZED RIGID SIGNS FOR NIGHTTIME WORK.

CHANNELIZING DEVICES

1. WHERE POSSIBLE ALL CHANNELIZING AND GUIDING DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM 2' LATERAL CLEARANCE TO THE TRAVELED WAY.

PUBLIC ACCESS

1. PROPERTY OWNERS WHOSE DRIVEWAYS WILL BE MADE INACCESSIBLE SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO RESTRICTING USE OF THE DRIVEWAY. FOR MULTIPLE ACCESS PROPERTIES, AT LEAST ONE DRIVEWAY SHALL BE OPEN AT ALL TIMES. ACCESS SHALL BE RESTORED TO ALL DRIVEWAYS AS SOON AS POSSIBLE.
2. SUITABLE RAMPS SHALL BE INSTALLED TO MAINTAIN SMOOTH TRANSITIONS FROM RESIDENTIAL AND COMMERCIAL DRIVEWAYS TO AND FROM THE WORK AREA.

LANE CLOSURES

1. LANE CLOSURES SHALL BE LOCATED TO PROVIDE OPTIMUM VISIBILITY, I.E. BEFORE CURVES AND CRESTS, TO THE EXTENT CONDITIONS PERMIT.
2. THE ENGINEER MAY REQUIRE THAT ALL LANES BE RE-OPENED AT ANY TIME IF THE ROUTE IS NEEDED FOR EMERGENCY PURPOSES. THIS COULD INCLUDE INCIDENTS AT LOCATIONS OUTSIDE THE CONTRACT LIMITS.
3. ARROW PANELS SHALL BE LEGIBLE CONTINUOUSLY FROM ANY POINT WITHIN THE ROADWAY (INCLUSIVE OF SHOULDERS) FROM 1,500 FEET IN ADVANCE OF THE LANE CLOSURE TAPER TO THE BEGINNING OF THE LANE CLOSURE TAPER.

LANE WIDTHS

1. UNLESS AUTHORIZED BY THE ENGINEER, THE MINIMUM LANE WIDTHS FOR WORK ZONE TRAVEL LANES SHALL BE AS FOLLOWS: FREEWAYS AND/OR EXPRESSWAYS IS 11'. THE MINIMUM LANE WIDTH FOR ALL OTHER TYPES OF ROADWAYS IS 10'.
2. A WRITTEN NOTE SHALL BE PROVIDED TO THE ENGINEER, A MINIMUM OF 21 CALENDAR DAYS IN ADVANCE OF PERFORMING ANY WORK THAT RESULTS IN THE REDUCED WIDTH OF AN EXISTING ROADWAY, SO THAT THE ENGINEER MAY NOTIFY THE REGIONAL PERMIT ENGINEER IN A TIMELY MANNER.

PROTECTIVE VEHICLES

1. A PROTECTIVE VEHICLE IS A LARGE DUMP TRUCK, A LARGE RACK TRUCK OR OTHER VEHICLE HAVING A GROSS WEIGHT OF AT LEAST 24,000 POUNDS. IF THE PROTECTIVE VEHICLE ENCROACHES INTO THE TRAVEL LANE, OR IF IT REMAINS ENTIRELY ON THE SHOULDER OF ANY HIGH SPEED ROAD (45 MPH OR HIGHER), IT SHALL BE EQUIPPED WITH A DEPLOYED TRUCK/TRAILER MOUNTED IMPACT ATTENUATOR (TMIA, SEE TABLE 011-01 ON SHEET 619-11). PROTECTIVE VEHICLES MAY BE LOADED WITH SAND, GRAVEL, OR FINE AGGREGATE AS BALLAST TO ENHANCE THE VEHICLE'S GROSS WEIGHT. ANY BALLAST ADDED TO ENHANCE THE VEHICLE'S GROSS WEIGHT SHALL BE SECURED AS NOT TO BECOME DISLODGED IF IMPACTED.
2. A PROTECTIVE VEHICLE USED IN A MOVING OPERATION IS REFERRED TO AS A SHADOW VEHICLE.
3. A PROTECTIVE VEHICLE USED IN A STATIONARY OPERATION IS REFERRED TO AS A BARRIER VEHICLE.
4. IN A MOVING OPERATION OR A STATIONARY OPERATION THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR, THE OPERATOR SHALL REMAIN IN THE PROTECTIVE VEHICLE WITH THE SAFETY BELT AND HEADREST PROPERLY ADJUSTED, MAINTAIN VEHICLE SPACING, AND KEEP THE WHEELS ALIGNED WITH THE LANE STRIPING. TWO-WAY RADIOS SHOULD BE USED TO COMMUNICATE BETWEEN THE OPERATOR AND THE WORK CREW.
5. IN A STATIONARY OPERATION THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR, ONCE THE PROTECTIVE VEHICLE HAS BEEN APPROPRIATELY PLACED, IT SHOULD BE UNOCCUPIED. UNOCCUPIED VEHICLE SHALL BE POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS /ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING AND LANE TO MAINTAIN LANE DISCIPLINE AND TO STAY IN LANE IF STRUCK.
6. WHEN A PROTECTIVE VEHICLE IS USED IN ADVANCE OF EITHER MOVING OR STATIONARY OPERATIONS TO DISPLAY SIGN MESSAGES, IT IS REFERRED TO AS AN ADVANCE WARNING VEHICLE. ADVANCED WARNING VEHICLES MAY BE OCCUPIED OR UNOCCUPIED. WHEN SIGNS ARE MOUNTED ON AN ADVANCED WARNING VEHICLE, THEY SHALL NOT OBSTRUCT VISIBILITY OF ANY LIGHTS (TAILLIGHTS OR WARNING LIGHTS) OR SIDE-VIEW MIRRORS ON THE VEHICLE.
7. NO WORK ACTIVITY, EQUIPMENT, VEHICLES AND/OR MATERIALS SHALL BE LOCATED BETWEEN THE PROTECTIVE VEHICLE AND THE ACTIVE WORK AREA (ROLL AHEAD DISTANCE).
8. PROTECTIVE VEHICLES MAY BE REQUIRED IN CONJUNCTION WITH POLICE PRESENCE IN THE WORK ZONE, TO BE INCLUDED IN THE UNIT BID PRICE FOR BASIC WORK ZONE TRAFFIC CONTROL, FOR CAPITOL CONSTRUCTION PROJECTS.
9. DIRECT VERBAL COMMUNICATION BETWEEN THE PROTECTIVE VEHICLES AND THE WORK VEHICLE(S) / EQUIPMENT SHALL BE UTILIZED WHERE AVAILABLE.

WORK DURATION DEFINITIONS

1. THERE ARE MAINLY FIVE WORK DURATIONS:
   - A. LONG-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN 3 CONSECUTIVE DAYS.
   - B. INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.
   - C. SHORT-TERM IS STATIONARY DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
   - D. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR. IT CAN BE PERFORMED DURING THE DAYTIME OR AT NIGHT IN ACCORDANCE WITH NOTES N1 TO N10 NOTES ON NIGHTTIME WORK.
   - E. MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY WHERE THE WORK AT ANY SPECIFIC LOCATION COMPLETES WITHIN 15 MINUTES. IT IS USED FOR VEHICLE BASED OPERATIONS AND DOES NOT INVOLVE WORKERS ON FOOT. IT CAN BE PERFORMED DURING THE DAYTIME OR AT NIGHT IN ACCORDANCE WITH NOTES N1 TO N10 NOTES ON NIGHTTIME WORK.
2. SPECIAL OPERATIONS ARE WORK OPERATIONS THAT DO NOT FIT INTO ONE OF THE ABOVE FIVE CATEGORIES. SPECIAL OPERATIONS INCLUDE:
   - A. STOP AND GO OPERATIONS - WORK THAT COMPLETES WITHIN 5 MINUTES AND ALLOWS WORKERS ON FOOT.
   - B. OTHER OPERATIONS INCLUDING MOWING, MULCHING/HERBICIDE OPERATIONS, TEMPORARY ROAD/INTERSECTION CLOSURES, ETC.

ROADWAY TYPE DEFINITIONS

1. FREEWAY:
   - A. INTERSTATE: INTERREGIONAL HIGH-SPEED, HIGH-VOLUME, DIVIDED FACILITIES WITH COMPLETE CONTROL OF ACCESS.
   - B. PARKWAY: DIVIDED HIGHWAYS FOR NON-COMMERCIAL TRAFFIC WITH FULL CONTROL OF ACCESS, GRADE PARKWAY SEPARATIONS, INTERCHANGES, AND OCCASIONAL AT-GRADE INTERSECTIONS. PARKWAYS ARE DESIGNATED BY LAW.

ROADWAY TYPE DEFINITIONS (CONTINUED)

2. EXPRESSWAY: DIVIDED HIGHWAYS FOR THROUGH TRAFFIC WITH FULL OR PARTIAL CONTROL OF ACCESS AND GENERALLY WITH GRADE SEPARATIONS AT MAJOR CROSSROADS. ALL FREEWAY STANDARD SHEETS ARE APPLICABLE TO EXPRESSWAY.
3. NON-FREEWAY:
   - A. MULTILANE DIVIDED HIGHWAY
   - B. MULTILANE UNDIVIDED HIGHWAY
   - C. TWO-LANE TWO-WAY ROADWAY

ALL NON-FREEWAYS CAN BE EITHER URBAN OR RURAL:

URBAN: (MEETS MORE THAN 1 OF THE FOLLOWING CRITERIA)
- •HIGH DENSITY DEVELOPMENT
- •ON-STREET PARKING
- •VARIED BUILDING SETBACKS
- •MULTI-STORY AND LOW-TO MEDIUM-RISE STRUCTURES FOR RESIDENTIAL
- •COMMERCIAL, AND EDUCATIONAL USES, STRUCTURES THAT ACCOMMODATE MIXED USES: COMMERCIAL, RESIDENTIAL, AND PARKING
- •LIGHT INDUSTRIAL, AND SOMETIMES HEAVY INDUSTRIAL, LAND USE
- •PROMINENT DESTINATIONS WITH SPECIALIZED STRUCTURES, E.G., LARGE THEATERS, SPORTS FACILITIES OR CONFERENCE CENTERS
- •HIGH LEVELS OF PEDESTRIAN AND BICYCLIST ACTIVITY, WITH NEARLY CONTINUOUS SIDEWALKS AND MARKED CROSSWALKS
- •HIGHER DENSITY OF TRANSIT STOPS AND ROUTES
- •DRIVEWAY DENSITIES GREATER THAN 25 DRIVEWAYS/MILE ON EACH SIDE OF THE ROAD
- •MINOR COMMERCIAL DRIVEWAY DENSITIES OF 10 DRIVEWAYS/MILE OR GREATER
- •MAJOR COMMERCIAL DRIVEWAYS
- •HIGH DENSITY OF CROSS STREETS

RURAL: DOES NOT MEET MORE THAN ONE OF THE ABOVE CRITERIA.

NOTES FOR NIGHTTIME OPERATIONS:

N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
N2. ALL SIGNS, STOP/SLOW PADDLES AND RED FLAGS USED TO WARN/ALERT/CONTROL TRAFFIC SHALL BE RETROREFLECTIVE.
N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.
N9. PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL FROM THE DOT ENGINEER.
N10. SEE STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.
N11. FLAGGERS SHALL USE A FLASHLIGHT WITH RED GLOW CONE/RED LED BATON FOR FLAGGING IN NON-ILLUMINATED FLAGGER STATIONS DURING NIGHTTIME OPERATIONS.

NEW YORK STATE OF OPPORTUNITY. | Department of Transportation
U.S. CUSTOMARY STANDARD SHEET
WORK ZONE TRAFFIC CONTROL
GENERAL NOTES
APPROVED APRIL 8, 2022
Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM
ISSUED UNDER EI 22-008
619-010

FILE NAME = 619-010.dgn
DATE/TIME = 13-APR-2022 09:36
USER = oboatwright

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
EXIT ↗	E5-1	C	-------	72"X60"	72"X60"
ROAD WORK NEXT 5 MILES	G20-1	A	36"X18"	48"X24"	48"X24"
END ROAD WORK	G20-2	A	36"X18"	48"X24"	48"X24"
PILOT CAR FOLLOW ME	G20-4	A	36"X18"	-------	-------
WORK ZONE	G20-5aP	A	24"X18"	36"X24"	36"X24"
22 22	M1-1	G	1 OR 2 DIGITS 24"X24"	36"X36"	36"X36"
495	M1-1†	G	3 DIGITS 30"X24"	45"X36"	45"X36"
X XX	M1-4	B	1 OR 2 DIGITS 24"X24"	36"X36"	36"X36"
XXX	M1-4†	B	3 DIGITS 30"X24"	45"X36"	45"X36"
NORTH	M3-1	SEE NOTE 3	24"X12"	36"X18"	36"X18"
EAST	M3-2				
SOUTH	M3-3				
WEST	M3-4				
DETOUR	M4-8	A	24"X12"	36"X18"	36"X18"
END DETOUR	M4-8a	A	24"X18"	24"X18"	24"X18"
DETOUR ↑ DETOUR ← DETOUR →	M4-9 M4-9L M4-9R	A	30"X24"	48"X36"	48"X36"
DETOUR ← DETOUR →	M4-9a	A	30"X24"	30"X24"	-------
DETOUR ← DETOUR →	M4-9b	A	30"X24"	30"X24"	-------
DETOUR ← DETOUR →	M4-9c	A	30"X24"	30"X24"	-------
◀ DETOUR	M4-10L	A	48"X18"	48"X18"	48"X18"
DETOUR ▶	M4-10R				
↰ ↱	M5-1	SEE NOTE 3	21"X15"	30"X21"	30"X21"
↖ ↗	M5-2	SEE NOTE 3	21"X15"	30"X21"	30"X21"
← →	M6-1	SEE NOTE 3	21"X15"	30"X21"	30"X21"
↖ ↗	M6-2				
↑	M6-3				
↔	M6-4				
XX XX	NYM3-1	B	24"X24"	36"X36"	36"X36"
XXX	NYM3-2	B	30"X24"	45"X36"	45"X36"
XXXA	NYM3-3	B	30"X24"	45"X36"	45"X36"

FILE NAME = 619-012-1.dgn
DATE/TIME = 06-DEC-2021 14:45
USER = oboatwright

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
STATE LAW LICENSE SUSPENDED AFTER TWO WORK ZONE SPEEDING TICKETS	NYR9-11	B	24"X42"	48"X84"	48"X84"
STATE LAW FINES DOUBLED FOR SPEEDING IN WORK ZONES	NYR9-12	B	24"X36"	36"X54"	48"X72"
RUMBLE STRIPS	NYW4-17	A	36"X36"	48"X48"	48"X48"
WET PAINT	NYW8-30	A	48"X24"	48"X24"	48"X24"
STAY IN LANE	NYW8-31	A	48"X24"	48"X24"	48"X24"
DO NOT PASS	NYW8-32	A	48"X24"	48"X24"	48"X24"
LANE CLOSED	NYW8-33	A	48"X24"	48"X24"	48"X24"
STOP	R1-1	D	36"X36"	36"X36"	48"X48"
YIELD	R1-2	E	36"X36"X36"	48"X48"X48"	60"X60"X60"
SPEED LIMIT XX	R2-1	B	24"X30" OR 30"X36" (SEE NOTE 5)	36"X48"	36"X48"
END HIGHER FINES ZONE	R2-11	B	24"X30"	36"X48"	36"X48"
END WORK ZONE SPEED LIMIT	R2-12	B	24"X36"	36"X54"	36"X54"
DO NOT PASS	R4-1	B	24"X30"	36"X48"	36"X48"
	R4-7	B	24"X30"	36"X48"	36"X48"
	R4-7c NARROW	B	18"X30"	-------	-------
	R4-8	B	24"X30"	36"X48"	36"X48"
	R4-8c NARROW	B	18"X30"	-------	-------
STAY IN LANE	R4-9	B	24"X30"	36"X48"	36"X48"
DO NOT ENTER	R5-1	E	36"X36"	36"X36"	48"X48"
Ⓟ	R8-3	E	24"X24"	36"X36"	48"X48"
PEDESTRIAN CROSSWALK	R9-8	B	36"X18"	36"X18"	-------
SIDEWALK CLOSED	R9-9	B	24"X12"	24"X12"	-------
SIDEWALK CLOSED USE OTHER SIDE	R9-10	B	24"X12"	24"X12"	-------
SIDEWALK CLOSED ← USE OTHER SIDE SIDEWALK CLOSED → USE OTHER SIDE	R9-10L R9-10R	B	24"X12"	24"X12"	-------
SIDEWALK CLOSED AHEAD ← CROSS HERE SIDEWALK CLOSED AHEAD → CROSS HERE	R9-11L R9-11R	B	24"X18"	24"X18"	-------
SIDEWALK CLOSED ← CROSS HERE SIDEWALK CLOSED → CROSS HERE	R9-11aL R9-11aR	B	24"X12"	24"X12"	-------
STOP HERE ON RED	R10-6	B	24"X36"	24"X36"	-------

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
ROAD CLOSED BRIDGE CLOSED	R11-2	B	48"X30"	48"X30"	48"X30"
BRIDGE OUT	R11-2 (MOD.)				
ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	R11-3a	B	60"X30"	60"X30"	-------
	W1-4L W1-4R	A	36"X36"	48"X48"	48"X48"
	W1-4bL W1-4bR	A	36"X36"	48"X48"	48"X48"
	W1-4cL W1-4cR	A	36"X36"	48"X48"	48"X48"
←	W1-6L	A	48"X24"	60"X30"	60"X30"
→	W1-6R	A			
‹	W1-8L	A (NO BORDER)	18"X24"	30"X36"	30"X36"
›	W1-8R	A (NO BORDER)			
	W3-1	A[4]	36"X36"	48"X48"	48"X48"
	W3-2	A[4]	36"X36"	48"X48"	48"X48"
	W3-3	A[4]	36"X36"	48"X48"	48"X48"
BE PREPARED TO STOP	W3-4	A	36"X36"	48"X48"	48"X48"
SPEED LIMIT 55	W3-5	A[4]	36"X36"	48"X48"	48"X48"
	W4-1L W4-1R	A	36"X36"	48"X48"	48"X48"
	W4-2L W4-2R	A	36"X36"	48"X48"	48"X48"

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
SLOW TRAFFIC AHEAD	NYW23-1	A	36"X36"	48"X48"	48"X48"
WORK ZONE	G20-5aP	6F.12	24"X18"	36"X24"	36"X24"
EXIT OPEN	E5-2	6F.28	48"X36"	48"X36"	48"X36"
EXIT CLOSED	E5-2a	6F.28	48"X36"	48"X36"	48"X36"

COLOR CODE LEGEND

CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
C	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
F	BLACK LEGEND AND BORDER ON A FLOURESCENT YELLOW GREEN BACKGROUND
G	WHITE LEGEND AND BORDER ON A BLUE AND RED BACKGROUND

NOTES:

1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
3. COLORS FOR DIRECTION PLAQUES, ADVANCE TURN ARROWS, AND DIRECTIONAL ARROWS SHALL MATCH THE ROUTE OR INTERSTATE SIGN THAT THEY SUPPLEMENT AS PER THE M.U.T.C.D.
4. MULTICOLORED SYMBOL IMPOSED ON SIGN WITH BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND.
5. FOR R2-1 SIGN LARGER DIMENSIONS SHALL BE USED WHEN SIGN FACES MULTIPLE LANES ON A CONVENTIONAL ROAD.

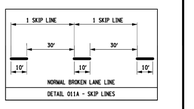
NEW YORK STATE OF OPPORTUNITY. | Department of Transportation
U.S. CUSTOMARY STANDARD SHEET
WORK ZONE TRAFFIC CONTROL
SIGN TABLE
(SHEET 1 OF 2)
APPROVED DECEMBER 2, 2021
Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM
ISSUED UNDER EI 21-028
619-012

TABLE 011-01: PROTECTIVE VEHICLE REQUIREMENTS

CLOSURE TYPE	DURATION	MOBILE (WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY, WHERE THE WORK AT ANY SPECIFIC LOCATION COMPLETES WITHIN 15 MINUTES) INCLUDES "STOP AND GO OPERATIONS OF 5 MINUTES OR LESS				SHORT DURATION (WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR)				SHORT TERM (DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD)				INTERMEDIATE TERM (WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS OR NIGHT TIME WORK LASTING MORE THAN 1 HOUR)				LONG TERM (WORK THAT OCCUPIES A LOCATION FOR MORE THAN 3 CONSECUTIVE DAYS)			
	ROAD TYPE & SPEED	FREEWAY	NON-FREEWAY			FREEWAY	NON-FREEWAY			FREEWAY	NON-FREEWAY			FREEWAY	NON-FREEWAY			FREEWAY	NON-FREEWAY		
			≥ 45 MPH	35 - 40 MPH	≤ 30 MPH		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH		≥ 45 MPH	35 - 40 MPH	≤ 30 MPH
	EXPOSURE CONDITIONS[1]																				
LANE CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	P, TMIA	P	P, TMIA	P, TMIA	P, TMIA	P	P, TMIA	P, TMIA	P, TMIA	P	P, TMIA	P, TMIA	P, TMIA	SEE NOTE 2	P, TMIA	P, TMIA	P, TMIA	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	NA	NA	NA	NA	P, TMIA	P, TMIA	P	P	P, TMIA	P, TMIA	P	SEE NOTE 2	P, TMIA	P, TMIA	SEE NOTE 2	SEE NOTE 2	P, TMIA	P, TMIA	SEE NOTE 2	SEE NOTE 2
SHOULDER CLOSURE OR ENCROACHMENT	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	P	P	P, TMIA	P, TMIA	P	P	P, TMIA	P, TMIA	P	P	P, TMIA	P, TMIA	SEE NOTE 2	SEE NOTE 2	P, TMIA	P, TMIA	SEE NOTE 2	SEE NOTE 2
	OTHER HAZARDS NO WORKERS EXPOSED	NA	NA	NA	NA	P, TMIA	P, TMIA	P	P	P, TMIA	P, TMIA	P	SEE NOTE 2	P, TMIA	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2	P, TMIA	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2

LEGEND
P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY
TMIA: TRUCK/TRAILER MOUNTED IMPACT ATTENUATOR (TMIA) REQUIRED
NA: NOT APPLICABLE

NOTES
1. THE EXPOSURE CONDITIONS ASSUMES THERE IS NO POSITIVE PROTECTION PRESENT
2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED



NORMAL BROKEN LANE LINE

DETAIL 011A - SKIP LINES

TABLE 011-02: TAPER LENGTHS & NUMBER OF CONES CHART

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (FT.)/ * OF SKIP LINES/ * OF CHANNELIZING DEVICES									SHOULDER TAPER LENGTH: L/3 (FT.)/ * OF SKIP LINES/ * OF CHANNELIZING DEVICES		
	LATERAL SHIFT OF TRAFFIC FLOW PATH (FT.)									FOR SHOULDER WIDTH		
	4	5	6	7	8	9	10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.
25	40/1/2	80/2/3	80/2/3	80/2/3	80/2/3	120/3/4	120/3/4	120/3/4	120/3/4	40/1/2	40/1/2	40/1/2
30	80/2/3	80/2/3	80/2/3	120/3/4	120/3/4	160/4/5	160/4/5	160/4/5	200/5/6	40/1/2	40/1/2	40/1/2
35	80/2/3	120/3/4	120/3/4	160/4/5	160/4/5	200/5/6	200/5/6	240/6/7	240/6/7	40/1/2	40/1/2	80/2/3
40	120/3/4	160/4/5	160/4/5	200/5/6	240/6/7	240/6/7	280/7/8	320/8/9	320/8/9	40/1/2	80/2/3	80/2/3
45	200/5/6	240/6/7	280/7/8	320/8/9	360/9/10	400/10/11	440/11/12	520/13/14	560/14/15	80/2/3	80/2/3	120/3/4
50	200/5/6	240/6/7	320/8/9	360/9/10	400/10/11	440/11/12	520/13/14	560/14/15	600/15/16	80/2/3	120/3/4	160/4/5
55	240/6/7	280/7/8	320/8/9	400/10/11	440/11/12	520/13/14	560/14/15	600/15/16	680/17/18	80/2/3	120/3/4	160/4/5
60	240/6/7	320/8/9	360/9/10	440/11/12	480/12/13	560/14/15	600/15/16	680/17/18	720/18/19	80/2/3	120/3/4	160/4/5
65	280/7/8	320/8/9	400/10/11	480/12/13	520/13/14	600/15/16	640/16/17	720/18/19	800/19/20	80/2/3	160/4/5	200/5/6

• THIS TABLE WAS CREATED WITH REFERENCE TO MUTCD TABLE 6H-4.
•• THE NUMBER OF CHANNELIZING DEVICES SHOWN IS CALCULATED BASED ON A 40FT DEVICE SPACING. THE NUMBER OF CHANNELIZING DEVICES CAN BE ADJUSTED AS NECESSARY.

TABLE 011-03 LONGITUDINAL BUFFER SPACE

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE (FT.)/ * OF SKIP LINES
25	155 / 4
30	200 / 5
35	250 / 6
40	305 / 8
45	360 / 9
50	425 / 11
55	495 / 13
65	645 / 16

• THIS TABLE IS THE SAME AS MUTCD TABLE 6C-2.

TABLE 011-04: ROLL AHEAD DISTANCE FOR PROTECTIVE VEHICLES

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	ROLL AHEAD DISTANCE (FT.)/* OF SKIP LINES FOR VEHICLES			
	MOVING OPERATION (BASED ON PROTECTIVE VEHICLE SPEED OF 15 MPH)		STATIONARY OPERATION	
	MIN	MAX	MIN	MAX
≥ 55	200/5	280/7	120/3	200/5
45 - 50	160/4	240/6	80/2	160/4
≤ 40	120/3	200/5	40/1	120/3

• THIS TABLE WAS CREATED WITH REFERENCE TO MUTCD TABLES NY-2 AND NY2-B.

TABLE 011-05 FLARE RATES FOR POSITIVE BARRIER

TYPE OF POSITIVE BARRIER	POSTED SPEED LIMIT				
	30 MPH	40 MPH	50 MPH	55 MPH	65 MPH
TEMPORARY POSITIVE BARRIER	8:1	11:1	14:1	16:1	20:1
BOX BEAM OR HEAVY POST CORRUGATED BEAM	7:1	9:1	11:1	12:1	15:1

TABLE 011-06 ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH•)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH•)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH•)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.
FREEWAY	1000	1500	2640	1 MILE	½ MILE

• PRECONSTRUCTION POSTED SPEED LIMIT.
•• THIS TABLE IS THE SAME AS MUTCD TABLE NY6H-3.

TABLE 011-07 TAPER LENGTH FOR TEMPORARY TRAFFIC CONTROL ZONES

TYPE OF TAPER	TAPER LENGTH (L)
MERGING TAPER	L
SHIFTING TAPER	L/2
SHOULDER TAPER	L/3
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT. MIN -100 FT. MAX
DOWNSTREAM TAPER	50 FT. MIN -100 FT. MAX

• THIS TABLE IS THE SAME AS MUTCD TABLE 6C-3.

WORK ZONE TRAFFIC CONTROL LEGEND

SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL TRAILER OR SUPPORT
⊢⊣	CHANGEABLE MESSAGE SIGN (PVMS)
■	CHANNELIZING DEVICE
	CONE
	CRASH CUSHION/TEMPORARY IMPACT ATTENUATOR
	DIRECTION OF TEMPORARY TRAFFIC DETOUR
→	DIRECTION OF TRAFFIC
	AUTOMATED FLAGGER ASSISTAMCE DEVICE WITH OPERATOR
	FLAGGER
	FLAG TREE
	LUMINAIRE
	MOWER
🟩	PARKWAY GRASS SHOULDER
	PAVEMENT MARKINGS THAT SHALL BE REMOVED FOR A LONG TERM PROJECT
PVMS	PORTABLE VARIABLE MESSAGE SIGN
	ADVANCE WARNING SIGN WITH ORANGE FLAGS
	TRAILER FOR ARROW PANEL OR PORTABLE VARIABLE MESSAGE SIGN (PVMS)

WORK ZONE TRAFFIC CONTROL LEGEND

SYMBOL	DESCRIPTION
	SIGN, TEMPORARY
	SPOTTER
	TEMPORARY POSITIVE BARRIER
	TEMPORARY POSITIVE BARRIER WITH WARNING LIGHTS
	TEMPORARY TRAFFIC SIGNAL HEAD
	TYPE III BARRICADE
	WARNING LIGHTS
▨	WORK AREA
	WORK VEHICLE
	WORK VEHICLE (MULCHING/HERBICIDE OPERATION)
	WORK VEHICLE (PAVEMENT MARKING)
	WORK VEHICLE (SIGNAL WORK)
	24,000LB PROTECTIVE VEHICLE WITH TRUCK/TRAILER MOUNTED ATTENUATOR (TMIA)
	24,000LB PROTECTIVE VEHICLE WITHOUT TRUCK/ TRAILER MOUNTED ATTENUATOR

NEW YORK STATE OF OPPORTUNITY. | Department of Transportation
U.S. CUSTOMARY STANDARD SHEET
WORK ZONE TRAFFIC CONTROL
GENERAL TABLES AND LEGEND
APPROVED DECEMBER 2, 2021
Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM
ISSUED UNDER EI 21-028
619-011

FILE NAME = 619-011.dgn
DATE/TIME = 23-DEC-2021 15:52
USER = woheron

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
ROAD NARROWS	W5-1	A	36"X36"	48"X48"	48"X48"
RAMP NARROWS	W5-4	A	36"X36"	48"X48"	48"X48"
↓↑	W6-3	A	36"X36"	48"X48"	48"X48"
NEXT 7 MILES	W7-3aP	A	24"X18"	36"X30"	36"X30"
BUMP	W8-1	A	36"X36"	48"X48"	48"X48"
PAVEMENT ENDS	W8-3	A	36"X36"	48"X48"	48"X48"
LOOSE GRAVEL	W8-7	A	36"X36"	48"X48"	48"X48"
ROUGH ROAD	W8-8	A	36"X36"	48"X48"	48"X48"
LOW SHOULDER	W8-9	A	36"X36"	48"X48"	48"X48"
NO CENTER LINE	W8-12	A	36"X36"	-------	-------
FALLEN ROCKS	W8-14	A	36"X36"	48"X48"	48"X48"
GROOVED PAVEMENT	W8-15	A	36"X36"	48"X48"	48"X48"
	W8-17	A	36"X36"	48"X48"	48"X48"
SHOULDER DROP-OFF	W8-17p	A	24"X18"	30"X24"	30"X24"
NO SHOULDER	W8-23	A	36"X36"	48"X48"	48"X48"
STEEL PLATE ON PAVEMENT	W8-24	A	36"X36"	48"X48"	48"X48"
CENTER LANE CLOSED AHEAD	W9-3	A	36"X36"	48"X48"	48"X48"
	W11-1L• W11-1R	A OR F	36"X36"	36"X36"	-------
	W11-2L• W11-2R	F	36"X36"	36"X36"	-------
	W11-15L• W11-15R	F	36"X36"	36"X36"	-------
IN LANE	NYW5-32P•	A	24"X18"	24"X18"	-------

• A FLOURESCENT YELLOW-GREEN BACKGROUND COLOR SHALL BE USED FOR THIS SIGN PLAQUE.

FILE NAME = 619-012-2.dgn
DATE/TIME = 06-DEC-2021 14:48
USER = oboatwright

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
XX MPH	W13-1P	A	24"X24"	30"X30"	30"X30"
ON RAMP	W13-4	A	36"X36"	36"X36"	36"X36"
NO PASSING ZONE	W13-4P	A	48"X48"X36"	-------	-------
500 FEET	W16-2P	A	24"X18"	30"X24"	-------
NEXT 500 FT	W16-4P	SEE NOTE 3 A OR F	30"X24"	-------	-------
← →	W16-5PL W16-5PR	A	24"X18"	-------	-------
↙ ↘	W16-7PL W16-7PR	SEE NOTE 3 A OR F	24"X12"	30"X18"	-------
AHEAD	W16-9P	SEE NOTE 3 A OR F	24"X12"	30"X18"	-------
ROAD WORK AHEAD ROAD WORK XXX FT ROAD WORK X MILE	W20-1	A	36"X36"	48"X48"	48"X48"
DETOUR AHEAD DETOUR XXX FT DETOUR X MILE	W20-2	A	36"X36"	48"X48"	48"X48"
ROAD CLOSED AHEAD ROAD CLOSED XXX FT ROAD CLOSED X MILE	W20-3	A	36"X36"	48"X48"	48"X48"
ONE LANE ROAD AHEAD ONE LANE ROAD XXX FT ONE LANE ROAD X MILE	W20-4	A	36"X36"	48"X48"	48"X48"
LEFT LANE CLOSED AHEAD LEFT LANE CLOSED 1500 FT LEFT LANE CLOSED 1 MILE RIGHT LANE CLOSED AHEAD RIGHT LANE CLOSED 1500 FT RIGHT LANE CLOSED 1 MILE	W20-5	A	36"X36"	48"X48"	48"X48"
2 LEFT LANES CLOSED AHEAD 2 LEFT LANES CLOSED 1500 FT 2 LEFT LANES CLOSED 1 MILE 2 RIGHT LANES CLOSED AHEAD 2 RIGHT LANES CLOSED 1500 FEET 2 RIGHT LANES CLOSED 1 MILE	W20-5a	A	36"X36"	48"X48"	48"X48"
	W20-7	A	36"X36"	48"X48"	48"X48"

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	NON-FREEWAY	EXPRESSWAY	FREEWAY
	W21-1	A	36"X36"	48"X48"	48"X48"
SLOW MOVING VEHICLE	W21-4	A	36"X18"	48"X24"	48"X24"
SHOULDER WORK	W21-5	A	36"X36"	48"X48"	48"X48"
LEFT SHOULDER CLOSED RIGHT SHOULDER CLOSED	W21-5aL W21-5aR	A	36"X36"	48"X48"	48"X48"
LEFT SHOULDER CLOSED AHEAD LEFT SHOULDER CLOSED XXX FT LEFT SHOULDER CLOSED X MILE RIGHT SHOULDER CLOSED AHEAD RIGHT SHOULDER CLOSED XXX FT RIGHT SHOULDER CLOSED X MILE	W21-5bL W21-5bR	A	36"X36"	48"X48"	48"X48"
MOWING AHEAD	W21-8	A	36"X36"	48"X48"	48"X48"
BLASTING ZONE AHEAD BLASTING ZONE XXX FT BLASTING ZONE X MILE	W22-1	A	36"X36"	48"X48"	48"X48"
TURN OFF 2-WAY RADIO AND CELL PHONE	W22-2	A	42"X36"	42"X36"	42"X36"
END BLASTING ZONE	W22-3	A	42"X36"	42"X36"	42"X36"
SLOW TRAFFIC AHEAD	W23-1	A	48"X24"	48"X24"	48"X24"
NEW TRAFFIC PATTERN AHEAD	W23-2	A	36"X36"	48"X48"	48"X48"
	W24-1L W24-1R	A	36"X36"	48"X48"	48"X48"
	W24-1aL W24-1aR	A	36"X36"	48"X48"	48"X48"
	W24-1bL W24-1bR	A	36"X36"	48"X48"	48"X48"

COLOR CODE LEGEND

CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
C	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
F	BLACK LEGEND AND BORDER ON A FLOURESCENT YELLOW GREEN BACKGROUND
G	WHITE LEGEND AND BORDER ON A BLUE AND RED BACKGROUND

NOTES:

1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
3. WHEN USED IN CONJUNCTION WITH A BICYCLE SIGN (W11-1) OR PEDESTRIAN CROSSING (W11-2) COLOR CODE SHALL MATCH.

NEW YORK STATE OF OPPORTUNITY. | Department of Transportation
U.S. CUSTOMARY STANDARD SHEET
WORK ZONE TRAFFIC CONTROL
SIGN TABLE
(SHEET 2 OF 2)
APPROVED DECEMBER 2, 2021
Robert Limoges
ROBERT LIMOGES, P.E.
DIRECTOR, OTSM
ISSUED UNDER EI 21-028
619-012

NO.	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

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Know what's below.
Call before you dig.

DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

DESIGN PROFESSIONAL FIRM:

WMB
GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID: 21-274.02-DY	DRAWN: JAM
DATE: 2023-07-27	DESIGN: DWY
SCALE: AS NOTED	CHECKED: DWY

PROJECT:

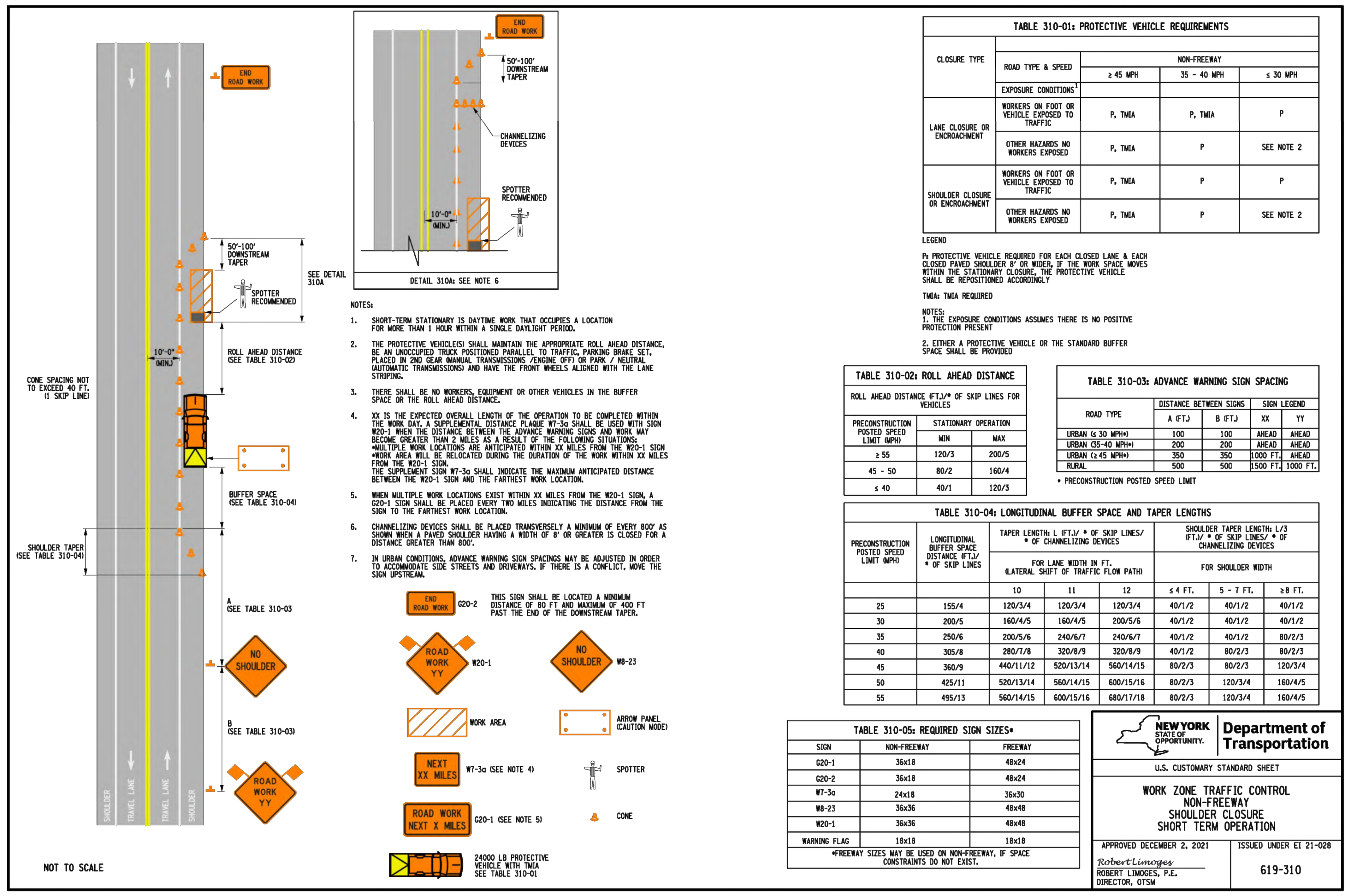
10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

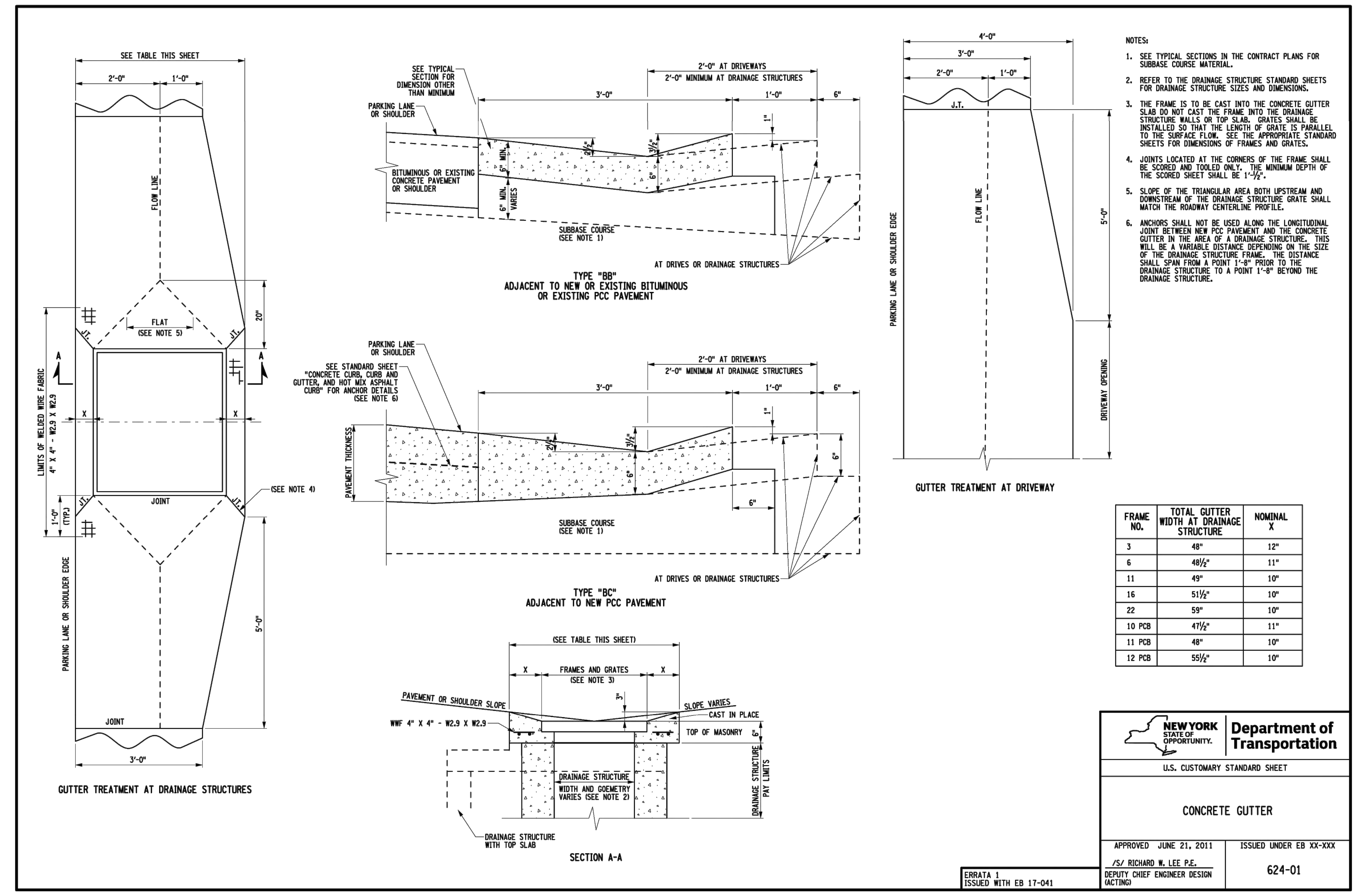
DRAWING TITLE:

WORK ZONE TRAFFIC CONTROL STANDARD SHEET 1

PLAN STATUS: **DESIGN**

SHEET NUMBER: **C-202**





REGION 4 STANDARD GENERAL PLAN NOTES

1. ROAD TO BE KEPT CLEAN OF MUD AND DEBRIS AT ALL TIMES.
2. ROADSIDE DRAINAGE TO BE MAINTAINED AT ALL TIMES
3. MATERIALS, EQUIPMENT AND VEHICLES ARE NOT TO BE STORED OR PARKED WITHIN THE NEW YORK STATE RIGHT-OF-WAY
4. MAINTENANCE AND PROTECTION OF TRAFFIC MUST COMPLY WITH THE CURRENT NATIONAL MUTCD WITH NYS SUPPLEMENT, SECTION 619 OF THE CURRENT NYSDOT STANDARD SPECIFICATIONS, THESE PLANS AND AS ORDERED BY THE ASSISTANT RESIDENT ENGINEER. ON A NYSDOT CONSTRUCTION PROJECT, MAINTENANCE AND PROTECTION OF TRAFFIC MUST COMPLY WITH THESE PLANS AND BE IN ACCORDANCE WITH THE NYSDOT CONTRACT DOCUMENTS AS DEEMED NECESSARY BY THE NYS ENGINEER-IN-CHARGE.
5. NOTIFY THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION'S ASSISTANT RESIDENT ENGINEER AT THE APPROPRIATE NUMBER, AS NOTED BELOW, FIVE (5) WORK DAYS PRIOR TO WORKING WITHIN THE STATE RIGHT-OF-WAY

   GENESEE CO. - DAN STAHLEY-(585) 343-0502 LIVINGSTON CO.- ADAM KISIAH (585) 346-3036

   MONROE CO. - WEST OF GENESEE RIVER MONROE CO. - EAST OF GENESEE RIVER

   DARRELL FAZIO-(585) 352-3471 ERICK WILLIAMS (585) 586-4514

   ONTARIO CO. - GREG TROST(-585) 396-4959 ORLEANS CO - BILL CROW (585) 589-6655

   WAYNE CO. - GREG TROST(-585) 396-4959 WYOMING CO. - SCOTT CHRISTIE (585) 786-3310

   IN ADDITION, THE PERMITTEE SHALL NOTIFY NYSDOT REGIONAL TRAFFIC OPERATIONS CENTER (RTOC) OF ALL LANE AND SHOULDER CLOSURES AT LEAST THREE (3) DAYS IN ADVANCE OF THE PROPOSED WORK UTILIZING RTOC'S CONSTRUCTION NOTIFICATION FORM. RTOC'S CONSTRUCTION NOTIFICATION FORM CAN BE OBTAINED FROM THE 511NY NOTIFICATION LINK AT THE WORK ZONE TRAFFIC CONTROL ICON ON THE REGION 4 PERMITS WEBSITE: WWW.DOT.NY.GOV/R4WORKPERMITS.

   PROPOSED CLOSURES WILL BE REVIEWED FOR CONCURRENT AND OVERLAPPING CLOSURE OR INCIDENT CONFLICTS AND WILL BE ENTERED INTO 511NY.ORG. CLOSURES INCLUDED IN THE NOTIFICATION SHALL CONFORM TO TIME, DATE, AND LOCATION RESTRICTIONS IN THE PERMIT. RTOC MAY DISALLOW OR REDUCE CLOSURES DUE TO OTHER CLOSURES OR WORK, EVENTS, OR INCIDENTS FOUND IN CONFLICT WITH THE PROPOSED CLOSURE(S). ALL LANE AND SHOULDER CLOSURES SHALL BE REMOVED DURING NON-WORKING HOURS, EXCEPT WHEN AUTHORIZED BY THE NYSDOT REGIONAL TRAFFIC ENGINEER OR DESIGNEE.
6. NOTIFY THE NYSDOT TRAFFIC SIGNAL MAINTENANCE ENGINEER AT (585) 753-7793 5 DAYS PRIOR TO WORKING WITHIN 350' OF A SIGNALIZED INTERSECTION. NOTIFY DIG SAFELY NEW YORK 2 WORK DAYS PRIOR TO DIGGING, DRILLING, OR BLASTING AT 811 FOR A UTILITY STAKE-OUT.
7. WORK ZONE TRAFFIC CONTROL STANDARD SHEETS NOT INCLUDED IN THE PERMIT PACKAGE SHALL NOT BE UTILIZED UNLESS APPROVED BY THE REGIONAL TRAFFIC ENGINEER.
8. ALL MATERIALS USED WITHIN THE STATE RIGHT-OF-WAY MUST COMPLY WITH THE CURRENT NEW YORK STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS ALONG WITH ANY APPROPRIATE CURRENT NYS DEPARTMENT OF TRANSPORTATION'S STANDARD SHEETS.
9. QUALITY CONTROL OF ASPHALT CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 401 OF THE STANDARD SPECIFICATIONS. ALL ASPHALT PRODUCED AS PART OF SECTION 401 WILL BE PAID AT A FINAL QUANTITY ADJUSTMENT FACTOR OF 1.0. ASPHALT COURSE DEPTHS SHOWN ON THE PLANS ARE COMPACTED DEPTHS.
10. NO NIGHT WORK SHALL BE ALLOWED UNLESS APPROVED PRIOR TO START OF PROJECT. ADDITIONAL MAINTENANCE AND PROTECTION OF TRAFFIC MAY BE REQUIRED INCLUDING THE ADDITION OF REFLECTIVE MATERIALS AND LIGHTING.
11. HAZARDOUS WASTE NOTIFICATION - THE PERMITTEE ACCEPTS THE RIGHT-OF-WAY OF THE STATE HIGHWAY IN ITS "AS IS" CONDITION. THE DEPARTMENT OF TRANSPORTATION MAKES NO REPRESENTATION AS TO THE ABSENCE OF UNDERGROUND TANKS, STRUCTURES, FEATURES OR SIMILAR IMPEDIMENTS TO THE COMPLETION OF THE WORK PERMITTED HEREUNDER. SHOULD PERMITTEE FIND SOME PREVIOUSLY UNKNOWN UNDERGROUND IMPEDIMENTS TO ITS WORK, THE DEPARTMENT OF TRANSPORTATION SHALL HAVE NO OBLIGATION TO CURE, REMOVE, REMEDY, OR OTHERWISE DEAL WITH SUCH PREVIOUSLY UNKNOWN UNDERGROUND IMPEDIMENTS. THE PERMITTEE IS REQUIRED TO REMOVE, MODIFY OR OTHERWISE DEAL WITH SUCH UNDERGROUND TANKS,STRUCTURES, FEATURES OR IMPEDIMENTS IN A MANNER WHICH MEETS ACCEPTABLE ENGINEERING PRACTICE AND IS APPROVED BY THE DEPARTMENT OF TRANSPORTATION.
12. ADA COMPLIANCE - ALL WORK SHALL BE IN ACCORDANCE WITH THE AMERICANS DISABILITY ACT (ADA) AND THE REQUIREMENTS OF THE 2013 PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES (PROWAG). REFER TO THE STANDARD SHEET 608-01 FOR DETAILS.
13. ANY DAMAGE TO ROADWAY FEATURES CASED DIRECTLY OR INDIRECTLY BY THE CONTRACTOR'S OPERATIONS WITHIN NYS ROW SHALL BE REPAIRED TO MEET NYSDOT STANDARDS AT THE CONTRACTOR'S EXPENSE.
14. NYSDOT OPERATIONS TAKE PRECEDENCE OVER HIGHWAY WORK PERMIT OPERATIONS. CONTRACTOR SHALL NOT HAVE WORK OPERATIONS IN PAVEMENT DURING INCLEMENT WEATHER CONDITIONS OR DURING SNOW AND ICE REMOVAL OPERATIONS ON STATE HIGHWAYS.

SPECIAL NOTE
TEMPORARY LANE/SHOULDER CLOSURE RESTRICTIONS FOR MAJOR HOLIDAYS

THERE SHALL BE NO TEMPORARY LANE/SHOULDER CLOSURES ON ROADWAY FACILITIES OWNED AND/OR MAINTAINED BY NYSDOT ON THE MAJOR HOLIDAYS LISTED BELOW.

CONSTRUCTION ACTIVITIES THAT WILL RESULT IN TEMPORARY LANE/SHOULDER CLOSURES SHALL BE SUSPENDED TO MINIMIZE TRAVEL DELAYS ASSOCIATED WITH ROAD WORK FOR MAJOR HOLIDAYS AS FOLLOWS:

HOLIDAY	FALLS ON	TEMPORARY LANE CLOSURES ARE NOT ALLOWED FROM
NEW YEAR'S DAY INDEPENDENCE DAY CHRISTMAS DAY	SUNDAY OR MONDAY	6:00 AM FRIDAY BEFORE TO 6:00 AM TUESDAY AFTER
	TUESDAY	6:00 AM SATURDAY BEFORE TO 6:00 AM WEDNESDAY AFTER (STARTING AT 6:00 AM FRIDAY BEFORE TO 6:00 AM WEDNESDAY AFTER FOR CHRISTMAS DAY)
	WEDNESDAY	6:00 AM TUESDAY BEFORE TO 6:00 AM THURSDAY AFTER (STARTING AT 6:00 AM SATURDAY BEFORE TO 6:00 AM THURSDAY AFTER FOR CHRISTMAS DAY)
	THURSDAY	6:00 AM THURSDAY TO 6:00 AM MONDAY AFTER (STARTING AT 6:00 AM WEDNESDAY BEFORE TO 6:00 AM MONDAY AFTER FOR CHRISTMAS DAY)
	FRIDAY OR SATURDAY	6:00 AM THURSDAY BEFORE TO 6:00 AM MONDAY AFTER

HOLIDAY	FALLS ON	TEMPORARY LANE CLOSURES ARE NOT ALLOWED FROM
MEMORIAL DAY LABOR DAY	MONDAY	6:00 AM FRIDAY BEFORE TO 6:00 AM TUESDAY AFTER
THANKSGIVING DAY	THURSDAY	6:00 AM WEDNESDAY BEFORE TO 6:00 AM MONDAY AFTER

EXCEPTIONS CAN ONLY BE MADE UNDER THE FOLLOWING CONDITIONS:

- EMERGENCY WORK.
- WORK WITHIN LONG-TERM STATIONARY LANE/SHOULDER CLOSURES.
- SAFETY WORK THAT DOES NOT ADVERSELY IMPACT TRAFFIC MOBILITY AND HAS BEEN AUTHORIZED BY THE REGIONAL TRAFFIC ENGINEER.

NOTE: THE DEPARTMENT RESERVES THE RIGHT TO CANCEL ANY WORK OPERATIONS, INCLUDING LANE CLOSURES AND/OR TOTAL ROAD CLOSURES, THAT WOULD CREATE TRAFFIC DELAYS BY UNFORESEEN EVENTS. THE CONTRACTOR WOULD BE NOTIFIED AT LEAST SEVEN (7) CALENDAR DAYS PRIOR TO THE PROPOSED WORK.

NO.	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

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DEVELOPER:

The Broadway Group — Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID: 21-274.02-DY	DRAWN: JAM
DATE: 2023-07-27	DESIGN: DWY
SCALE: AS NOTED	CHECKED: DWY

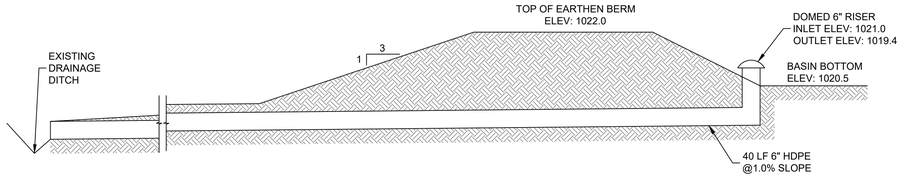
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

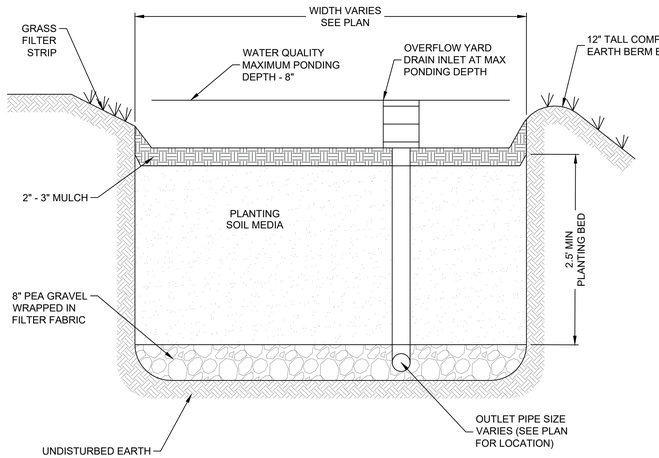
WORK ZONE TRAFFIC CONTROL STANDARD SHEET 2

PLAN STATUS:	SHEET NUMBER:
DESIGN	**C-203**



STORMWATER BASIN CROSS SECTION

NOT TO SCALE



TYPICAL BIORETENTION SECTION

NOT TO SCALE

NOTES:

1. SOIL COMPOSITION:
   - 35-60% SAND*
   - 30-55% SILT
   - 10-25% CLAY

   SOIL WILL BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" DIAMETER. PLACE PLANTING SOIL IN 12" LIFTS, LOOSELY COMPACTED (USE LIGHT EQUIPMENT SUCH AS COMPACT LOADER OR DOZER/LOADER WITH MARSH TRACKS). DO NOT USE HEAVY EQUIPMENT WITHIN BIORETENTION AREAS. THE SOIL SHALL HAVE A PERMEABILITY OF AT LEAST 0.5 INCH PER HOUR.

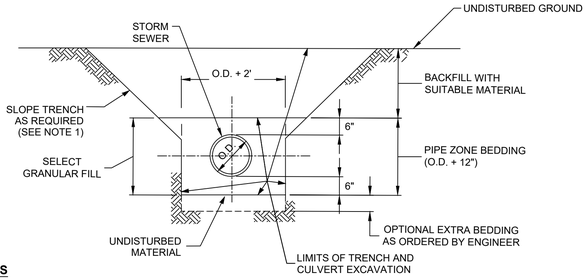
   *SAND SUBSTITUTION SUCH AS DIABASE, GRAYSTONE #10, OR ROCK DUST ARE NOT ACCEPTABLE. NO CALCIUM CARBONATE OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE.

2. MULCH: SINGLE OR DOUBLE SHREDDED, WELL COMPOSTED, UNCOLORED HARDWOOD MULCH AGED 6 MONTHS.

3. SOIL FOR EACH BIORETENTION AREA SHALL MEET THE FOLLOWING CRITERIA:

PH RANGE **	5.2 - 7.0
ORGANIC MATTER	1.5 - 4.0%
MAGNESIUM	35 LBS/ACRE
PHOSPHOROUS	75 LBS/ACRE
POTASSIUM	85 LBS/ACRE
SOLUBLE SALTS	NOT TO EXCEED 500 PPM

**IF PH FALLS OUT OF ACCEPTABLE RANGE, PH OF SOIL MAY BE MODIFIED WITH LIME (HIGHER PH), OR WITH IRON SULFATE PLUS SULFUR (LOWER PH)



NOTES

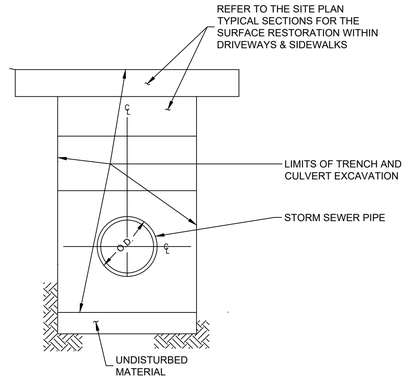
1. SLOPE, SHEETING & BRACING PER OSHA SPECIFICATIONS. TRENCH SHIELD OR SHEETING TO BE LIFTED ABOVE THE SPRING LINE. FOR EXCAVATIONS GREATER THAN 5', THE CONTRACTOR SHALL USE ONE OF THE FOLLOWING TREATMENT OPTIONS:
   A. LAYBACK OF TRENCH AT 1:1.5 (H:V). NO ADDITIONAL PAYMENT WILL BE MADE FOR EXCAVATION OR BACKFILL BEYOND THE TYPICAL TRENCH WIDTH OF O.D. + 2'.

2. WHERE STORM SEWER CROSSES PREVIOUSLY INSTALLED SANITARY SEWER, WATER OR GAS MAIN, ETC. TRENCH SHALL BE EXCAVATED DOWN TO THE PREVIOUSLY LAID UTILITY AND BACKFILLED WITH #2 CRUSHED STONE COMPACTED IN 6" LIFTS TO INSURE ADEQUATE SUPPORT.

3. 6" STONE BEDDING, CONSISTING OF A BLENDING OF #1 AND #2 STONE, IS REQUIRED FOR SANITARY AND STORM SEWER INSTALLATIONS WITH CRUSHED STONE HAUNCHING TO A MINIMUM OF ONE-HALF OF THE PIPE DIAMETER ON THE SIDE OF THE PIPE.

STORM SEWER TRENCH IN GRASS AREA

NOT TO SCALE



NOTES:

1. BACKFILL WILL BE MADE WITH SELECT GRANULAR MATERIAL TO THE BOTTOM OF TEMPORARY PAVEMENT, OR TO THE BOTTOM OF SUBBASE.

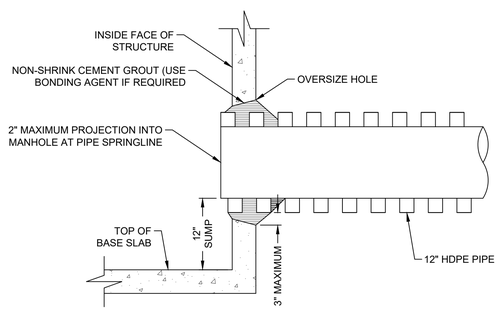
2. SLOPE SHEETING & BRACING PER OSHA, SPECIFICATION. TRENCH SHIELD OR SHEETING TO BE LIFTED ABOVE THE SPRING LINE. FOR EXCAVATIONS GREATER THAN 5', THE CONTRACTOR SHALL USE ONE OF THE FOLLOWING TREATMENT OPTIONS:
   A. LAYBACK OF TRENCH AT 1:1.5 (H:V). NO ADDITIONAL PAYMENT WILL BE MADE FOR EXCAVATION OF BACKFILL BEYOND THE TRENCH WIDTH OF 0.D. + 2'.

3. WHERE STORM SEWER CROSSES PREVIOUSLY INSTALLED SANITARY SEWER, WATER OR GAS MAIN, ETC. TRENCH SHALL BE EXCAVATED DOWN TO THE PREVIOUSLY LAID UTILITY AND BACKFILL WITH #2 CRUSHED STONE COMPACTED IN 6" LIFTS TO INSURE ADEQUATE SUPPORT.

4. 6" STONE BEDDING, CONSISTING OF A BLENDING OF #1 AND #2 STONE, IS REQUIRED FOR SANITARY AND STORM SEWER INSTALLATIONS WITH CRUSHED STONE HAUNCHING TO A MINIMUM OF ONE-HALF OF THE PIPE DIAMETER ON THE SIDE OF THE PIPE.

STORM SEWER TRENCH IN PAVED AREA

NOT TO SCALE



PIPE CONNECTION TO DRAINAGE STRUCTURE

NOT TO SCALE

NO.	DATE	DESCRIPTION	INT.
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1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

NOTICE

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

DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

STATE OF NEW YORK — DAVID W. JAMES — LICENSED PROFESSIONAL ENGINEER — NO. 071156

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID:	DRAWN:
21-274.02-DY	JAM
DATE:	DESIGN:
2023-07-27	DWY
SCALE:	CHECKED:
AS NOTED	DWY

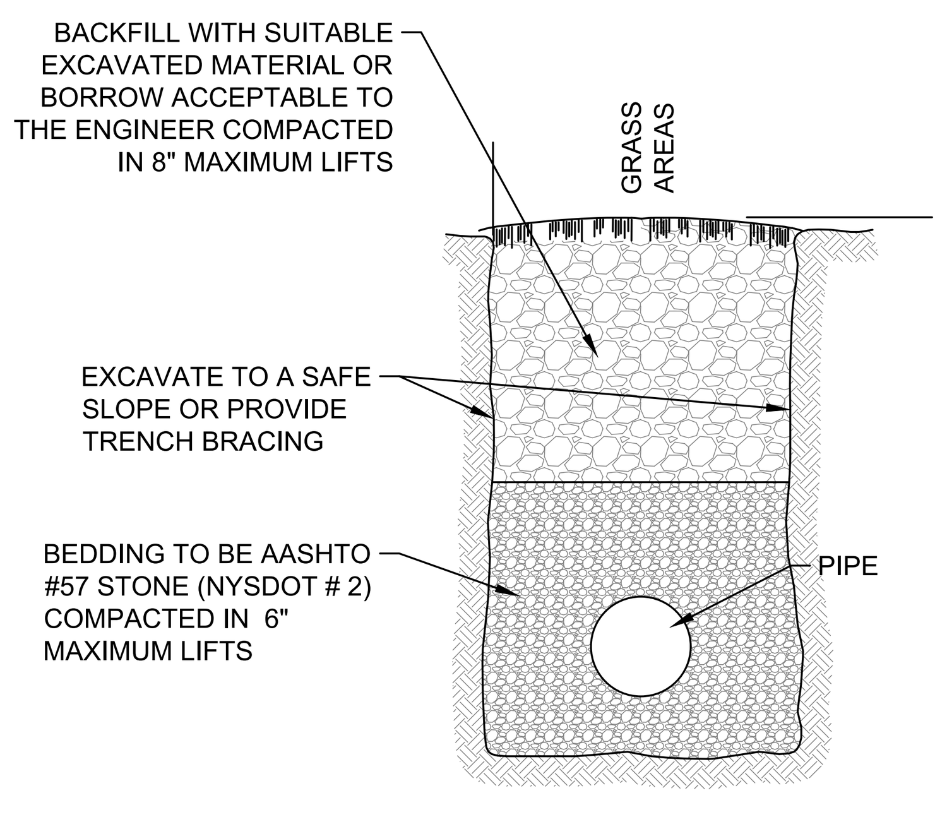
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

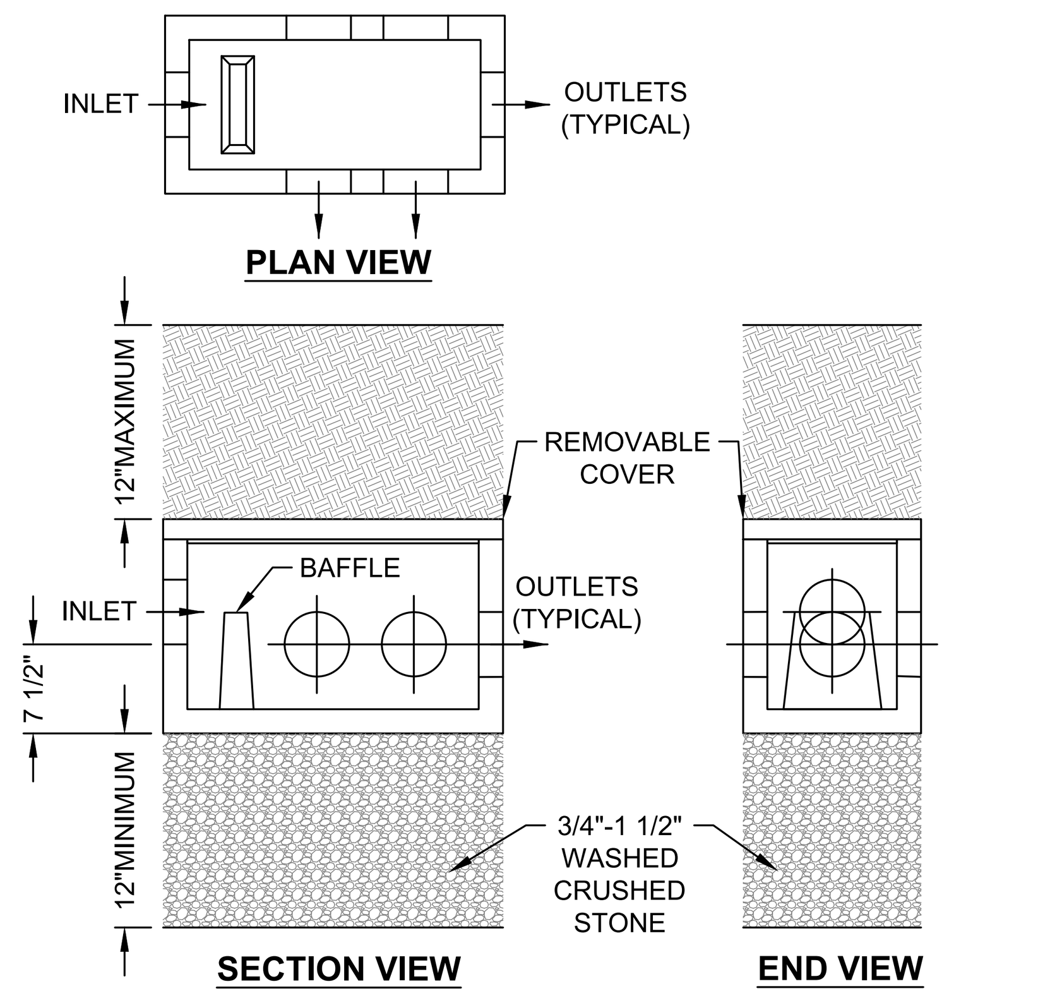
STORMWATER DETAILS

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-204



SANITARY SEWER AND LATERAL TRENCH

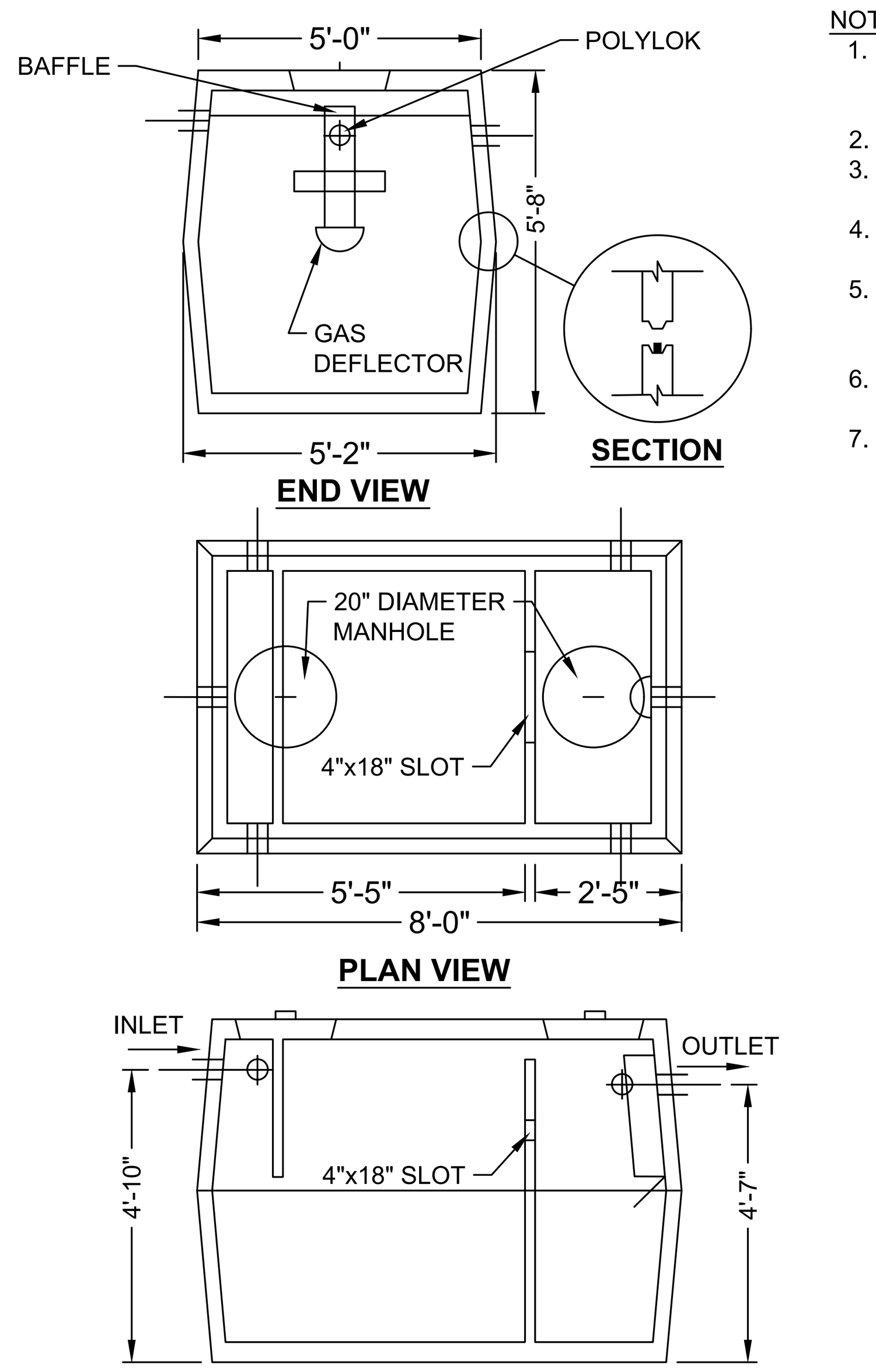
NOT TO SCALE



DISTRIBUTION BOX

NOT TO SCALE

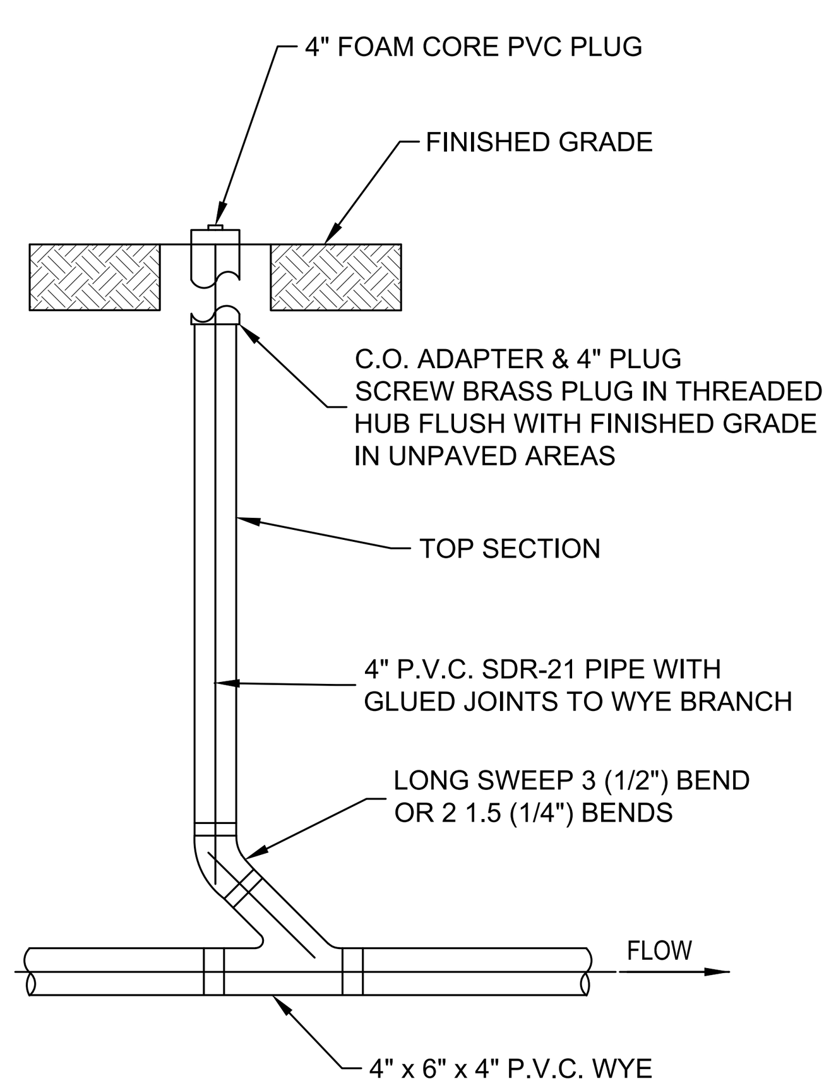
NOTES:
1. DISTRIBUTION BOX TO BE AS MANUFACTURED BY ZEISER-WILBERT VAULT COMPANY OR APPROVED EQUAL. BOX TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
2. PIPE JOINTS TO BE SEALED WITH ASPHALTIC MATERIAL OR EQUIVALENT.
3. INVERT ELEVATIONS OF ALL OUTLET PIPES MUST BE EQUAL. USE OR FLOW EQUALIZATION DEVICES IS RECOMMENDED.
4. THE PIPE FROM THE SEPTIC TANK TO THE DISTRIBUTION BOX INLET MUST BE SLOPED AT LEAST 1/8" PER FOOT.
5. THE SLOPE OF OUTLET PIPES (HEADER PIPES) BETWEEN THE DISTRIBUTION BOX AND DISTRIBUTION LATERALS MUST BE SLOPED AT LEAST 1/32" PER FOOT.
6. BAFFLE REQUIRED FOR SIPHON OR ATOMATIC DOSING OS IF INLET PIPE EXCEEDS 1/2" PER FOOT.
7. BAFFLE CAN BE BUILT IN ON A PIPE ELBOW OR TEE.



1000 GALLON DUAL COMPARTMENT SEPTIC TANK

NOT TO SCALE

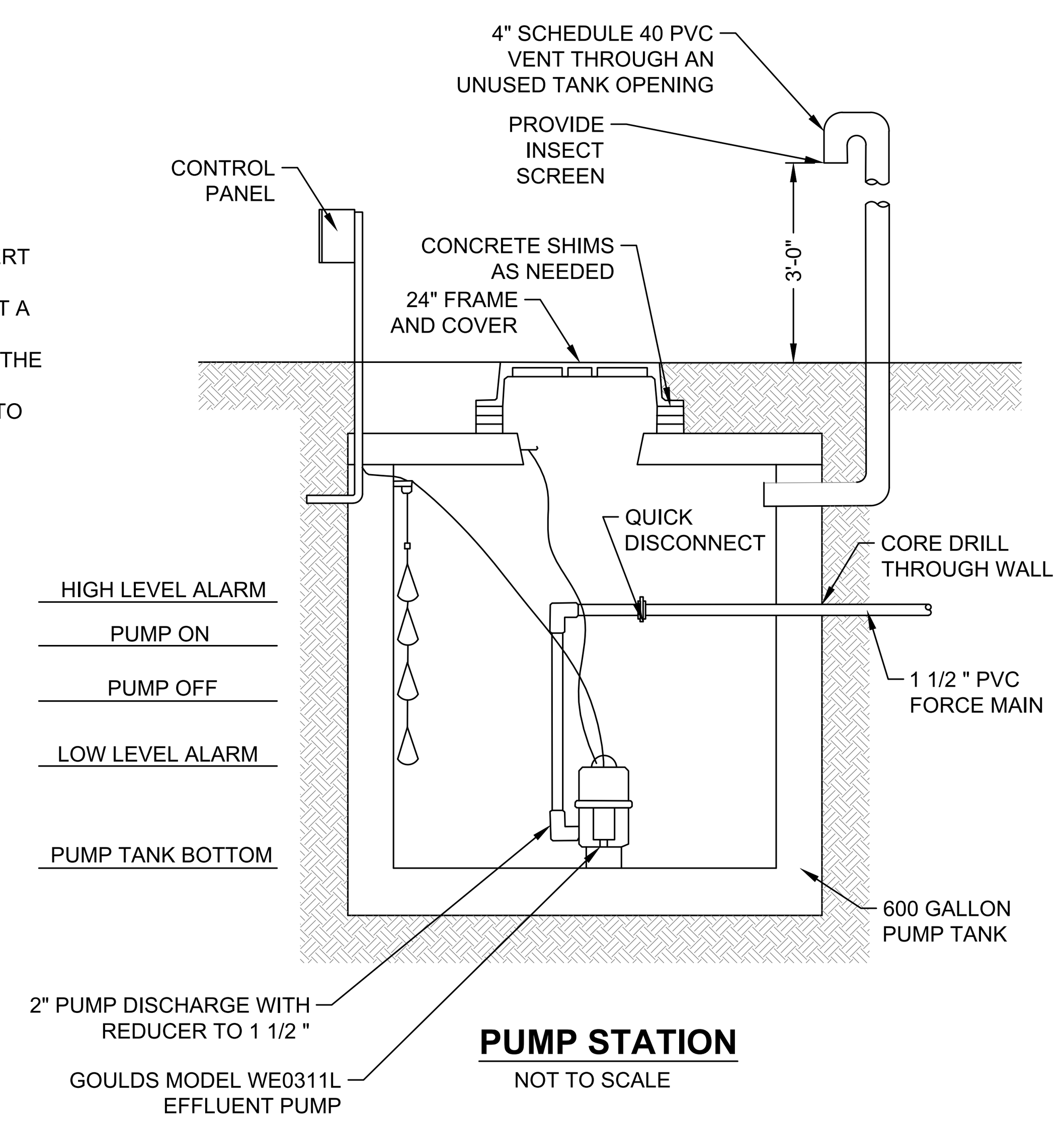
NOTES:
1. SEPTIC TANK TO BE AS MANUFACTURED BY ZEISER-WILBERT VAULT COMPANY OR APPROVED EQUAL.
2. CONNECTIONS TO COMPARTMENTS SHALL BE LOCATED AT A DISTANCE BELOW THE LIGUID LEVEL EQUAL TO 1/3 THE DISTANCE (D) BETWEEN THE INVERT OF THE OUTLET AND THE BOTTOM OF THE TANK.
3. AT LEAST ONE ACCESS MANHOLE SHALL BE PROVIDED INTO EACH COMPARTMENT.



IN-LINE CLEANOUT

NOT TO SCALE

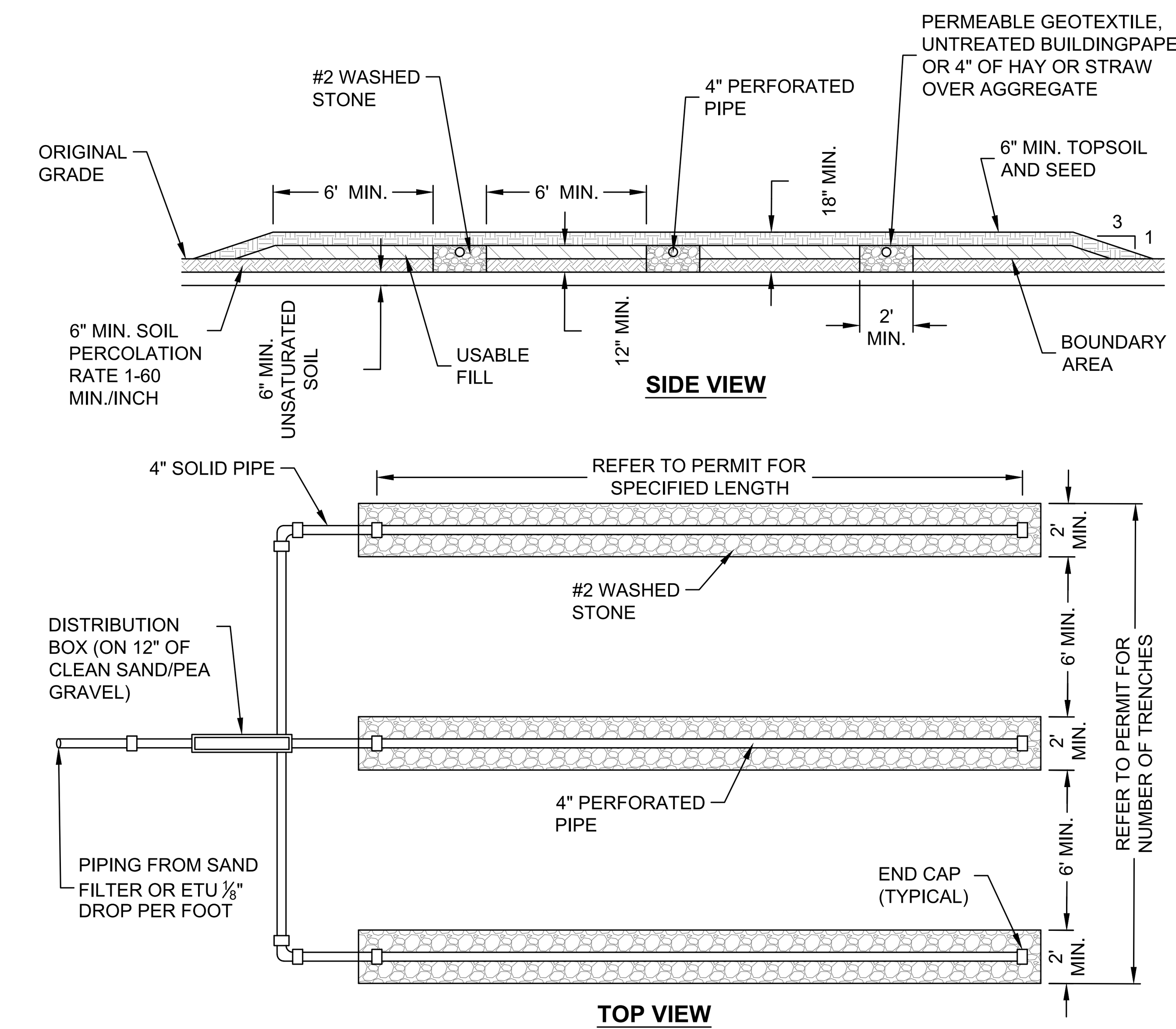
PUMP STATION ELEVATIONS	
TOP OF FRAME	722.50
EXISTING GRADE	722.25
FLOOR	714.00
4" LATERAL INV.	718.31
1 1/2 " FORCE MAIN OUTLET INVERT	718.50
LEVEL CONTROLS:	
HIGH LEVEL ALARM	716.50
PUMP ON	716.25
PUMP ON	716.00
PUMP OFF	715.50
LOW LEVEL ALARM	715.25



PUMP STATION

NOT TO SCALE

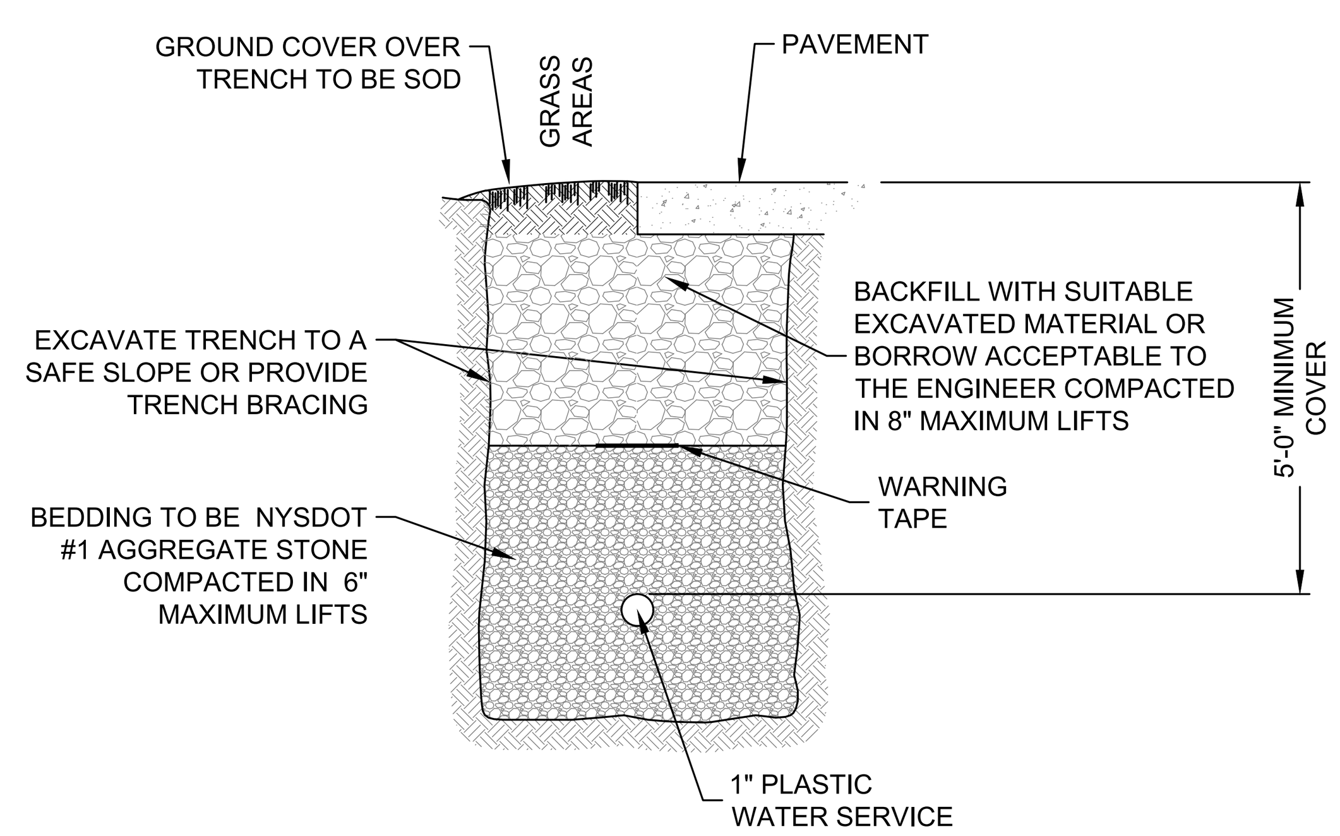
NOTES:
1. PUMP TANK TO BE AS MANUFACTURED BY LAKELANDS CONCRETE PRODUCTS, INC. OR APPROVED EQUAL.
2. CONTROL PANEL TO BE WEATHER PROOF AND MOUNTED ON A CONCRETE PAD.
3. FINISHED GRADE TO BE SLOPED AWAY FROM MANHOLE COVER IN AREA SURROUNDING PUMP STATION ACCESS.



DOWNSTREAM MODIFIED ABSORPTION TRENCHES (DMAT)

NOT TO SCALE

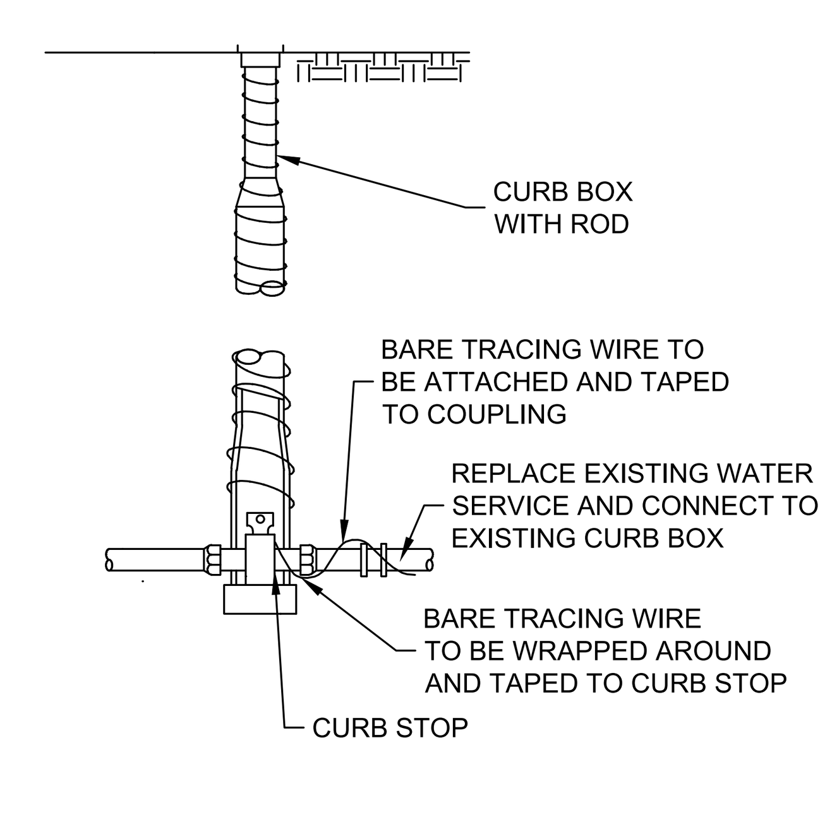
NOTE:
1. REFER TO SEPARATION DISTANCES TABLE FOR MORE INFORMATION ON VERTICAL SEPARATION DISTANCES TO BEDROCK.
2. TRENCHES SHOULD BE AS LONG AS POSSIBLE TO MINIMIZE PARALLEL TRENCHES.
3. DISTRIBUTOR LENGTH SHALL NOT EXCEED 60 FEET.
4. DISTRIBUTORS IN AGGREGATE MUST BE SLOPED 1/16" TO 1/32" PER FOOT.
5. USABLE FILL MUST BE SIMILAR TO THE INSITU PERMEABLE SOIL.
6. SYSTEM DEPTH (INCLUDING A MINIMUM OF 6" OF PERMEABLE COVER) MUST BE AT LEAST 18", WITH A MINIMUM OF 12" OF AGGREGATE CONTACTING PERMEABLE SOIL SIDEWALL OF TRENCH.
7. SEE PERMIT FOR MAXIMUM BOTTOM DEPTH OF TRENCHES.



WATER SERVICE TRENCH

NOT TO SCALE

NOTES:
1. WATER SERVICE TO BE BURIED WITH A MINIMUM COVER DEPTH OF FIVE FEET.
2. CONTRACTOR TO KEEP TRENCH FREE OF WATER AND PROVIDE A STABLE BASE FOR THE PIPE BEDDING.



WATER SERVICE INSTALLATION

NOT TO SCALE

NYSDOT REGION 4 UTILITY PERMIT NOTES

ROAD PAVEMENT, SHOULDER AND DRAINAGE ARE NOT TO BE DISTURBED OR UNDERMINED UNLESS INDICATED OTHERWISE IN THE PLANS.

SUITABLE NON-FROZEN, NON-SATURATED BACKFILL TO BE USED AND PLACED IN 6" COMPACTED LIFTS.

PAVEMENT TO BE MAINTAINED UNTIL A PERMANENT REPAIR CAN BE MADE.

PAVEMENT TO BE REPLACED IN KIND OR AS SPECIFIED ON ATTACHED PLANS.

ALL DISTURBED GRASS AREAS WITHIN THE R.O.W. ARE TO BE FINE GRADED, 4" TOPSOIL PLACED AND TURF ESTABLISHED.

NOTE

ROAD PLATES SHALL NOT BE USED DURING THE ***SNOW AND ICE SEASON*** (NOVEMBER 1ST THROUGH APRIL 1ST). DURING THE MONTHS OF OCTOBER AND APRIL, CALL THE WORK AREA JURISDICTIONAL NYSDOT TRANSPORTATION MAINTENANCE RESIDENCY WITH PLATE LOCATIONS. ROAD PLATES SHALL BE PINNED AND RAMPED. A *"STEEL PLATE AHEAD"* SIGN (W8-24) SHALL BE INSTALLED IN ADVANCE OF THE PLATE IN ACCORDANCE WITH TABLE NY6H-3 ON STANDARD SHEET 619-11. IF THE SURFACE OF THE PLATE IS 1" OR GREATER ABOVE/BELOW THE SURROUNDING PAVEMENT, A "BUMP" SIGN (W8-1) SHALL BE INSTALLED BETWEEN THE PLATE AND "STEEL PLATE AHEAD" SIGN IN ACCORDANCE WITH TABLE NY6H-3 ON STANDARD SHEET 619-11 AND A BARREL WITH A TYPE A FLASHER SHALL BE PLACED ON THE SHOULDER AT THE PLATE.

WINTER ASPHALT PAVEMENT AND SHOULDER RESTORATION

EXCAVATION BACKFILL SHALL BE WITH NO. 2 STONE (NOT CRUSHER RUN), ITEM 623.12, PLACED TO SIX INCHES (6") BELOW THE EXISTING PAVEMENT SURFACE. THE REMAINING SIX INCHES (6") SHALL HAVE CONCRETE PLACED TO MATCH EXISTING ADJACENT PAVEMENT GRADE AND SHALL HAVE A GOOD, SMOOTH, NON-POLISHED RIDING SURFACE.

IN THE SPRING, WHEN ASPHALT PLANTS OPEN, THE CONCRETE AND STONE SHALL BE REMOVED TO THE EXISTING BOTTOM OF THE SUBBASE IN ORDER TO PERFORM FINAL RESTORATION PER PREVIOUSLY APPROVED NYSDOT PAVEMENT RESTORATION PROCEDURES.

TEST PITS

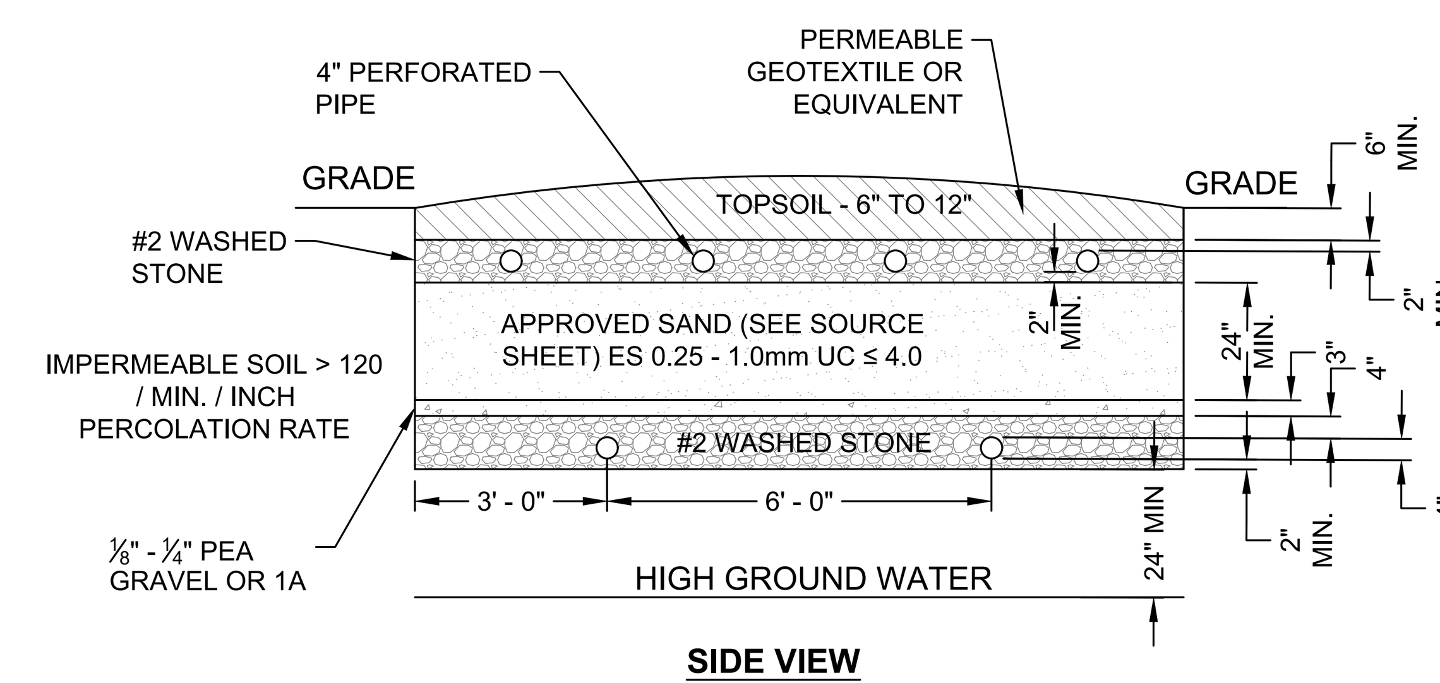
ALL TEST PITS IN THE PAVEMENT SHALL BE COMPLETED BY AN 18" SQUARE/ROUND VACUUM EXCAVATION.

EXCAVATION SUPPORT SYSTEM REQUIREMENTS

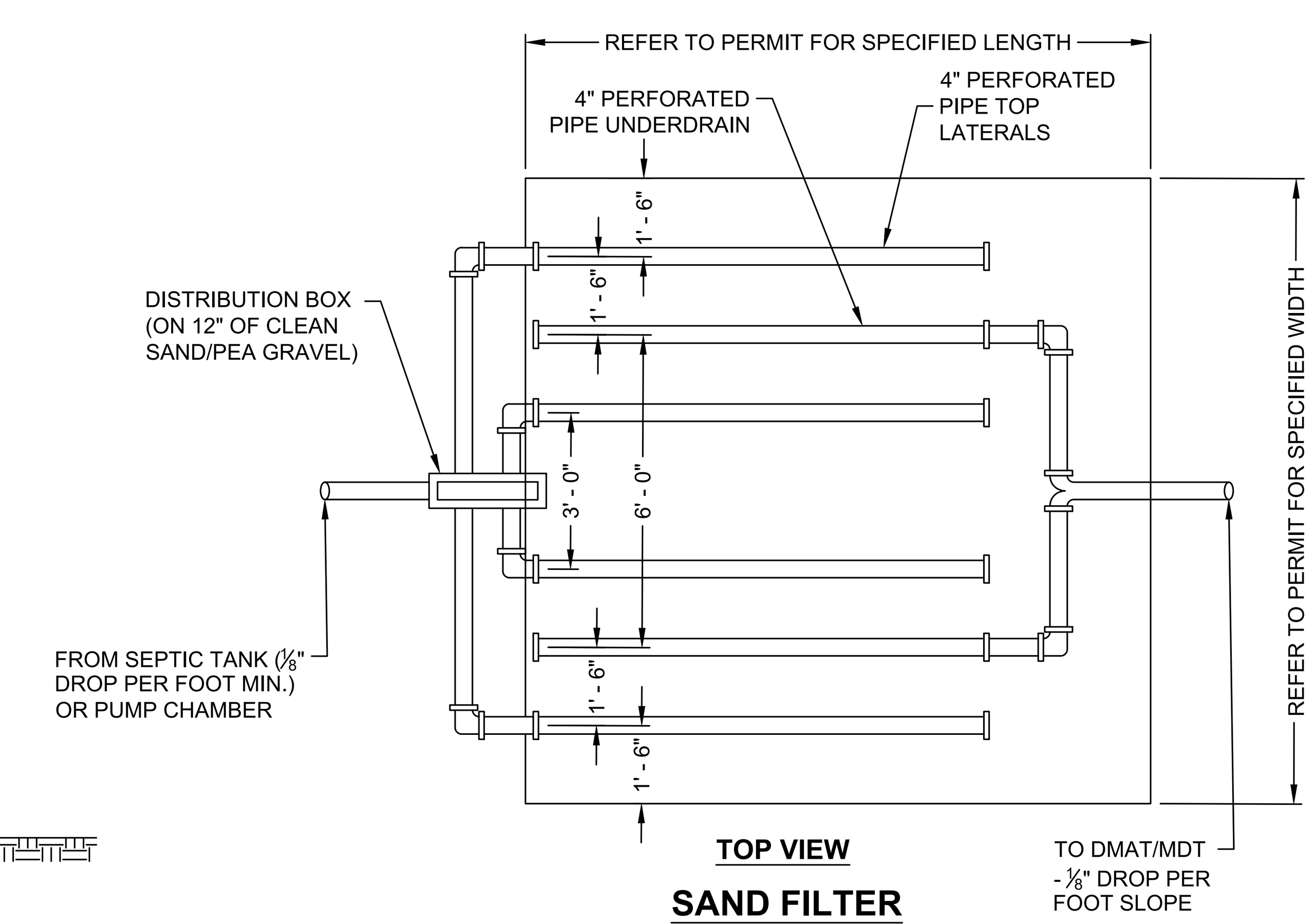
ANY EXCAVATION 5 FEET OR MORE IN DEPTH SHALL UTILIZE A SHIELDS AND SHORING OR SHEETING SYSTEM WHICH PROVIDES DIRECT CONTACT AND SUPPORT OF THE EXCAVATION SIDES. THE SYSTEM SHALL ACCOMMODATE ANY ASSOCIATED SURCHARGE LOADS AND SHALL BE SUBMITTED TO NYSDOT'S REGIONAL GEOTECHNICAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE.

A SLOPING (LAYBACK) OPTION WILL NOT BE ALLOWED.

SHIELDS AND SHORING OR SHEETING SYSTEM REQUIREMENTS DO NOT PERTAIN TO TEST PITS WHICH ARE 18" OR LESS IN DIAMETER.



SIDE VIEW



TOP VIEW

SAND FILTER

NOT TO SCALE

NOTES:
1. A SINGLE CENTER UNDERDRAIN MAY BE USED WHEN THE FILTER WIDTH DOES NOT EXCEED 12 FEET.
2. UNDERDRAIN LINES TO BE CENTERED BETWEEN DISTRIBUTOR LINES.
3. ENDS OF ALL PIPES MUST BE CAPPED.
4. PERFORATED TOP LATERALS SHALL HAVE 1/16" DROP PER FOOT SLOPE FOR GRAVITY SYSTEMS.
5. INSTALL PERFORATED TOP LATERALS LEVEL FOR PUMPED/DOSED SYSTEMS.
6. PERFORATED UNDERDRAIN PIPING SHALL HAVE 1/16" TO 1/8" DROP PER FOOT SLOPE.

NO.	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

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PROJECT ID: 21-274.02-DY	DRAWN: JAM
DATE: 2023-07-27	DESIGN: DWY
SCALE: AS NOTED	CHECKED: DWY

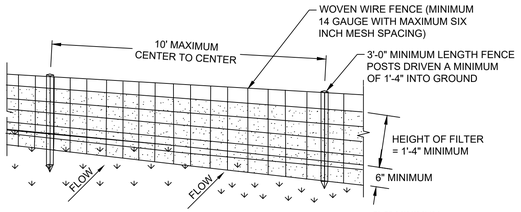
PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

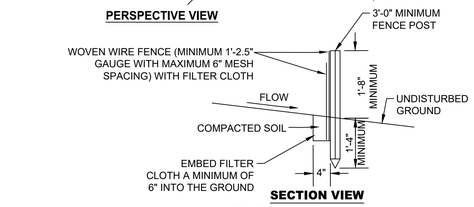
DRAWING TITLE:

UTILITY DETAILS

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-210



PERSPECTIVE VIEW

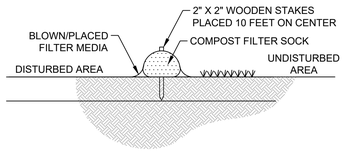


SECTION VIEW

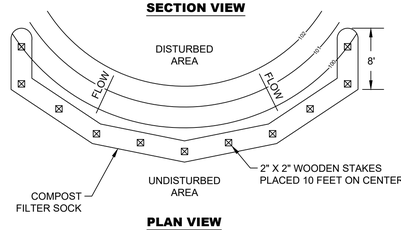
SILT FENCE

NOT TO SCALE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



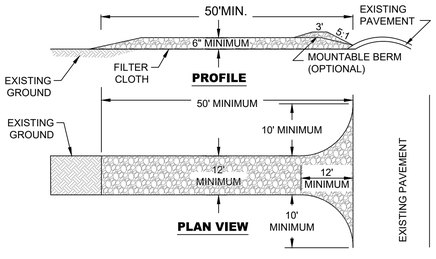
SECTION VIEW



PLAN VIEW

COMPOST FILTER SOCK

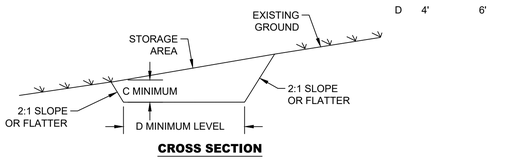
NOT TO SCALE



STABILIZED CONSTRUCTION ACCESS

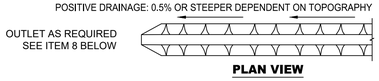
NOT TO SCALE

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CON-STRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH



	SWALE A	SWALE B
C	1'	1'
D	4'	6'

CROSS SECTION



PLAN VIEW

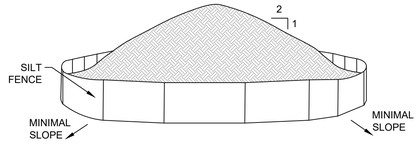
CONSTRUCTION DITCH

NOT TO SCALE

1. ALL CONSTRUCTION DITCHES SHALL HAVE UNINTERUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE DITCH SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO . THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DITCH. .
8. STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

TYPE OF TREATMENT	CHANNEL GRADE	A (5 ACRES OR LESS)	B (5-10 ACRES)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED AND COVER USING RECP
3	5.1-8.0%	SEED AND COVER WITH RECP	LINED WITH 4-8" RIP-RAP OR GEOTEXTILE
4	8.1-10.%	LINED WITH 4-8" RIP-RAP OR GEOTEXTILE	SITE SPECIFIC DESIGN

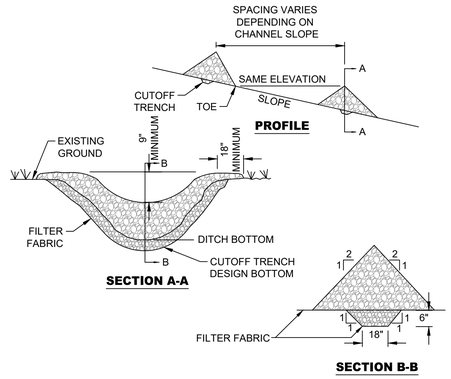
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.



TEMPORARY SOIL STOCKPILE

NOT TO SCALE

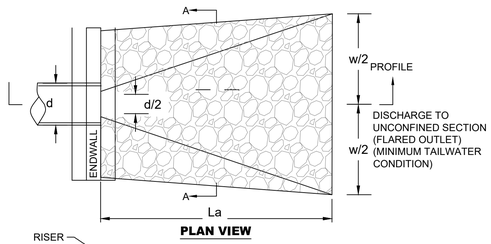
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.

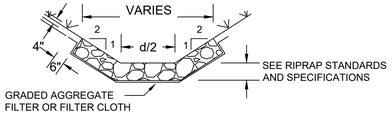


STONE CHECK DAM

NOT TO SCALE

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE. MAXIMUM DRAINAGE AREA 2 ACRES.

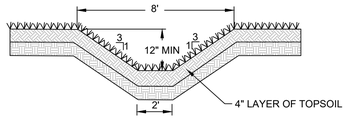




NOTE:
SEE RIPRAP STANDARDS AND SPECIFICATIONS
MINIMUM TAILWATER CONDITIONS

RIPRAP OUTLET PROTECTION

NOT TO SCALE

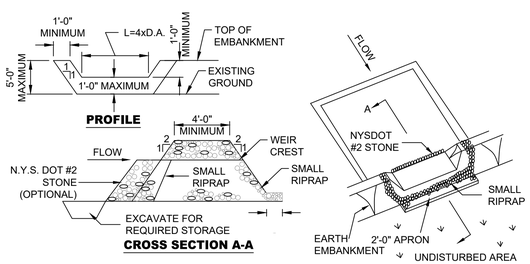


SECTION VIEW

PERMANENT GRASS LINED DIVERSION SWALE

NOT TO SCALE

1. MINIMUM DEPTH OF SWALE SHALL BE 12".
2. SWALE SHALL BE AT LEAST 6 FEET WIDE AT TOP.
3. SWALE SHALL BE SEEDED AND MULCHED WITH FAST GERMINATING RYE 15 LBS. TO 25 LBS. PER 1,000 SF.
4. SLOPE OF SWALE SHALL BE MINIMUM 2%.

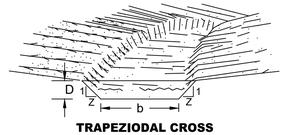


OPTION: A ONE FOOT LAYER OF NYSDOT #2 STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP INPLACE OF THE EMBEDDED FILTER CLOTH.

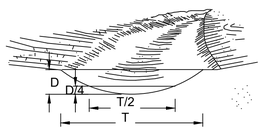
STONE OUTLET SEDIMENT TRAP ST-II

NOT TO SCALE

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMEN-SIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. IT SHALL BE PLACED ON SITE AND STABILIZED.
6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. MAXIMUM DRAINAGE AREA 5 ACRES



TRAPEZIODAL CROSS SECTION



PARABOLIC CROSS SECTION

GRASSED WATERWAY

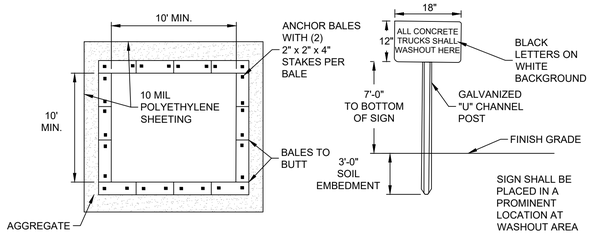
NOT TO SCALE

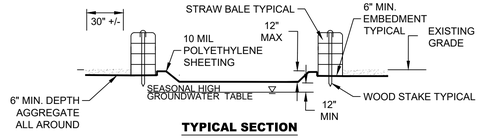
1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.
2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETE WATERWAY.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
5. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFICATIONS FOR VEGETATIVE PRACTICES.

A. FOR DESIGN VELOCITIES OF LESS THAN 3.5 FEET PER SECOND, SEEDING AND MULCHING MAY BE USED FOR THE ESTABLISHMENT OF THE VEGETATION. IT IS RECOMMENDED THAT, WHEN CONDITIONS PERMIT, TEMPORARY WATERWAYS OR OTHER MEANS SHOULD BE USED TO PREVENT WATER FROM ENTERING THE WATERWAY DURING THE ESTABLISHMENT OF THE VEGETATION.

B. FOR DESIGN VELOCITIES OF MORE THAN 3.5 FEET PER SECOND, THE WATERWAY SHALL BE STABILIZED WITH SOD, WITH SEEDING PROTECTED BY JUTE OR EXCELSIOR MATTING OR WITH SEEDING AND MULCHING INCLUDING TEMPORARY DIVERSION OF THE WATER UNTIL THE VEGETATION IS ESTABLISHED.

C. STRUCTURAL - VEGETATIVE PROTECTION SUBSURFACE DRAIN FOR BASE FLOW SHALL BE CONSTRUCTED AS SHOWN ON THE STANDARD DRAWING AND AS SPECIFIED IN THE STANDARD AND SPECIFICATIONS FOR SUBSURFACE DRAIN.





TYPICAL SECTION

CONCRETE WASHOUT AREA

NOT TO SCALE

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. THIS INCLUDES REPLACEMENT OF THE 10 MIL POLYETHLENE SHEETING.
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.

NO.	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

NOTICE

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DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

STATE OF NEW YORK · DAVID W. YOUNG · No. 071155 · LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID: 21-274.02-DY	DRAWN: JAM
DATE: 2023-07-27	DESIGN: DWY
SCALE: AS NOTED	CHECKED: DWY

PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

EROSION AND SEDIMENT CONTROL DETAILS

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-215

SPDES GENERAL PERMIT GP-0-20-001 COMPLIANCE NOTES:

THIS PLAN SET AND THE ACCOMPANYING SWPPP ENTITLED "STORMWATER PREVENTION POLLUTION PLAN - PROPOSED 10,640 SF COMMERCIAL BUILDING" HAVE BEEN SUBMITTED AS A SET. THESE ENGINEERING DRAWINGS ARE CONSIDERED AN INTEGRAL PART OF THE SWPPP, THEREFORE THE PLAN SET IS NOT CONSIDERED COMPLETE WITHOUT THE SWPPP.

THIS PROJECT HAS NOT RECEIVED WRITTEN APPROVAL FROM THE TOWN OF ALABAMA ALLOWING THE DISTURBANCE OF MORE THAN FIVE (5) ACRES OF LAND AT ANY ONE TIME. THEREFORE, IF THE CONTRACTOR' S CONSTRUCTION SEQUENCE REQUIRES THE DISTURBANCE OF MORE THAN FIVE ACRES AT ANY ONE TIME, WRITTEN APPROVAL MUST BE OBTAINED FROM NYSDEC PRIOR TO EXCEEDING THE 5 ACRE LIMIT.

CONSTRUCTION SEQUENCING NOTES:

1. PRIOR TO COMMENCING ANY CLEARING, GRUBBING, EARTHWORK ACTIVITIES, ETC. AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, TREE PROTECTION/BARRIER FENCES, STABILIZED CONSTRUCTION ENTRANCES, STORM DRAIN SEDIMENT FILTERS, DRAINAGE DITCH SEDIMENT FILTERS, ETC.) INDICATED ON THE PROJECT DRAWINGS. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS.
2. THE CONTRACTOR SHALL CLEAR AND GRUB THE AREA OF THE STORMWATER MANAGEMENT FACILITIES. THIS AREA SHALL NOT EXCEED FIVE (5) ACRES IN EXTENT WITHOUT TEMPORARY STABILIZATION.
3. THE STORMWATER BASIN SHALL BE UTILIZED AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL THE OUTLET CONTROL STRUCTURES AND THE EARTHEN BERM. THE BASIN SHALL BE GRADED TO THE TOP OF THE AQUATIC BENCH AS INDICATED IN THE TYPICAL STORMWATER MANAGEMENT BASIN SECTION PRESENTED IN THE PROJECT DRAWINGS.
4. PRIOR TO COMMENCING CLEARING, GRUBBING AND/OR EARTHWORK ACTIVITIES IN ANY OTHER AREA OF THE SITE, THE CONTRACTOR SHALL INSTALL INLET AND OUTLET PROTECTION MEASURES (RIPRAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC.) AND SHALL STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE SEDIMENT BASIN.
5. THE CONTRACTOR SHALL INSTALL TEMPORARY DIVERSION MEASURES WITH ASSOCIATED STABILIZATION MEASURES (I.E. VEGETATIVE COVER, DRAINAGE DITCH SEDIMENT FILTERS, STORM DRAIN SEDIMENT FILTERS, ETC.) TO ASSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN.
6. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ASSURE THAT THE AREA TRIBUTARY TO EACH DIVERSION DOES NOT EXCEED FIVE (5) ACRES. THESE TEMPORARY DIVERSION MEASURES SHALL BE INSPECTED DAILY AND REPAIRED/STABILIZED AS NECESSARY TO MINIMIZE EROSION.
7. THE CONTRACTOR SHALL COMMENCE SITE CONSTRUCTION ACTIVITIES INCLUDING CLEARING & GRADING OF THE PROPOSED AREA OF DISTURBANCE AS REQUIRED.
8. INSTALL PROTECTIVE MEASURES AT THE LOCATIONS OF ALL GRATE INLETS, CURB INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
9. CONSTRUCT BUILDING AND ALL UTILITIES, CURB AND GUTTER. GUTTER INLETS, AREA INLETS, AND STORM SEWER MANHOLES, AS SHOWN ON THE PLANS. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. PLACE REQUIRED RIP-RAP AT LOCATIONS SHOWN ON THE PLANS.
10. FINALIZE PAVEMENT SUB-GRADE PREPARATION.
11. REMOVE PROTECTIVE MEASURES AROUND INLETS AND MANHOLES NO MORE THAN 24 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
12. INSTALL SUBBASE MATERIAL AS REQUIRED FOR PAVEMENT.
13. PRIOR TO FINALIZING CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY, ALL CATCH BASINS AND DRAINAGE LINES SHALL BE CLEANED OF ALL SILT AND SEDIMENT.
14. UPON COMPLETION OF SITE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY. CONTRACTOR SHALL FINISH GRADE THE FOREBAY AND DRY POND, AND STABILIZE AS INDICATED IN THE PROJECT DRAWINGS.
15. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND IMMEDIATELY ESTABLISH PERMANENT VEGETATION ON THE AREAS DISTURBED DURING THEIR REMOVAL

EROSION AND SEDIMENT CONTROL MEASURES:

1. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
2. AS MUCH AS IS PRACTICAL, EXISTING VEGETATION SHALL BE PRESERVED.FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.
3. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", LATEST EDITION.
2. EXCESS SOIL TO BE STOCKPILED WITHIN THE LIMITS OF SITE DISTURBANCE IF NOT USED IMMEDIATELY FOR GRADING PURPOSES. INSTALL SILT FENCE AROUND SOIL STOCKPILES.
3. APPLY SURFACE STABILIZATION AND RESTORATION MEASURES. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS DELAYED, SUSPENDED. OR INCOMPLETE, AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED. (SEE SPECIFICATIONS FOR TEMPORARY VEGETATIVE COVER). AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS COMPLETE AND WILL NOT BE REDISTURBED SHALL BE STABILIZED AND RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE. (SEE SPECIFICATIONS FOR PERMANENT VEGETATIVE COVER). SEEDING FOR PERMANENT VEGETATIVE COVER SHALL BE WITHIN THE SEASONAL LIMITATIONS. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
4. SEEDED AREAS TO BE MULCHED WITH STRAW OR HAY MULCH IN ACCORDANCE WITH VEGETATIVE COVER SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT AND WATER.
7. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE:
INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE.

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALES) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

CHECK DAM:
INSPECT CHECK DAMS EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. IF SIGNIFICANT EROSION HAS OCCURRED BETWEEN STRUCTURES, A LINER OF STONE OR OTHER SUITABLE MATERIAL SHOULD BE INSTALLED IN THAT PORTION OF THE CHANNEL. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAM AS NEEDED TO ALLOW CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. REPLACE STONES AS NEEDED MAINTAIN THE DESIGN CROSS SECTION OF THE STRUCTURES. REMOVE CHECK DAMS AS PER APPROVAL OF ENGINEER.

EROSION CONTROL BLANKET:
INSPECT THE BLANKET EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE CRACKS AND DAMAGED VEGETATION ARE EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

EARTHERN DIKE:
INSPECT ALL EARTHERN DIKES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION SHALL BE REPAIRED IMMEDIATELY.

TEMPORARY SWALE:
INSPECT ALL TEMPORARY SWALES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION SHALL BE REPAIRED IMMEDIATELY.

SEDIMENT TRAP:
INSPECT ALL SEDIMENT TRAPS EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPAIRS SHALL BE MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/2 OF THE DESIGN DEPTH OF THE TRAP.

STORM DRAIN INLET PROTECTION:
INSPECT ALL STORM DRAIN INLET PROTECTION DEVICES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE REPAIRS AS NEEDED. REMOVE SEDIMENT FROM THE POOL AREA AS NECESSARY.

DEWATERING PITS:
(IF REQUIRED) - INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND CONSTRUCT NEW PITS AS NEEDED.

SNOW AND ICE CONTROL:
PARKING LOTS, ROADWAYS, AND DRIVEWAYS ADJACENT TO WATER QUALITY FILTERS SHALL NOT BE SANDED DURING SNOW EVENTS DUE TO HIGH POTENTIAL FOR CLOGGING FROM SAND IN SURFACE WATER RUNOFF. USE SALT ONLY FOR SNOW AND ICE CONTROL.

TOPSOIL SPECIFICATIONS:

1. EXISTING EXCESS TOPSOIL SHALL BE REMOVED AND STORED IN TOPSOIL STOCKPILES SUFFICIENTLY REMOVED FROM OTHER EXCAVATION OR DISTURBANCE TO AVOID MIXING. SILT FENCE SHALL BE INSTALLED AROUND TOPSOIL STOCKPILE AREAS.

SITE PREPARATION:
1. COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED.
2. SCARIFY ALL COMPACT, SLOWLY PERMEABLE, MEDIUM AND FINE TEXTURED SUBSOIL AREAS. SCARIFY AT APPROXIMATELY RIGHT ANGLES TO THE SLOPE DIRECTION IN SOIL AREAS THAT ARE STEEPER THAN 5%.
3. REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER THREE (3) INCHES IN DIAMETER, AND OTHER LITTER.

TOPSOIL MATERIALS:
1. NEW TOPSOIL SHALL BE BETTER THAN OR EQUAL TO THE QUALITY OF THE EXISTING ADJACENT TOPSOIL. IT SHALL MEET THE FOLLOWING CRITERIA:
   A. ORIGINAL LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENSE MATERIAL, HARDPAN, CLAY, STONES, SOD, OR OTHER OBJECTIONABLE MATERIAL.
   B. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105° C.
   C. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF THE SAMPLE WHICH PASSES A1/4" SIEVE.
   D. CONTAINING THE FOLLOWING WASHED GRADATIONS·

SIEVE DESIGNATION	% PASSING
1"	100
1/4"	97-100
NO 200	20-60

APPLICATION AND GRADING:
1. TOPSOIL SHALL BE DISTRIBUTED TO A UNIFORM DEPTH OF 4" OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, OR ON FROZEN SLOPES OR OVER ICE, SNOW, OR STANDING WATER.
2. TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5% SHALL BE PROMPTLY FERTILIZED,SEEDED, MULCHED, AND STABILIZED BY "TRACKING" WITH SUITABLE EQUIPMENT.

VEGETATIVE COVER SPECIFICATIONS:

TEMPORARY VEGETATIVE COVER (DURING CONSTRUTION):
1. SITE PREPARATION
   (SAME AS PERMANENT VEGETATIVE COVER)
2. SEED MIX: (APPLY AT RATE OF 3 TO 4 POUNDS PER 1000 SQUARE FEET)

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
100%	ANNUAL RYEGRASS	98%	90%

3. SEEDING
   (SAME AS PERMANENT VEGETATIVE COVER)

PERMANENT VEGETATIVE COVER (DURING CONSTRUTION):
1. SITE PREPARATION
   A. BRING AREA TO BE SEEDED TO REQUIRED GRADE. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL IS REQUIRED.
   B. PREPARE SEEDBED BY LOOSENING SOIL TO A DEPTH OF FOUR (4) INCHES.
   C. REMOVE ALL STONES OVER ONE (1) INCH IN DIAMETER, STICKS, AND FOREIGN MATTER FROM THE SURFACE.
   D. LIME TO PH OF 6.5.
   E. FERTILIZER:USE 5-10-5 (NPK) OR EQUIVALENT. APPLY AT RATE OF FOUR (4) POUNDS PER 1000 SQUARE FEET.
   F. INCORPORATE LIME AND FERTILIZER IN THE TOP FOUR (4) INCHES OF TOPSOIL.
   G. SMOOTH AND FIRM THE SEEDBED.

2. SEED MIXTURE FOR USE ON LAWN AREAS:
   PROVIDE FRESH, CLEAN, NEW-CROP SEED MIXED IN THE PROPORTIONS SPECIFIED FOR SPECIES AND VARIETY, AND CONFORMING TO FEDERAL AND STATE STANDARDS.

   LAWN SEED MIX: (APPLY AT RATE OF 5 TO 6 POUNDS PER 1000 SQUARE FEET)

   SUN AND PARTIAL SHADE:

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
50%	KENTUCKY BLUE GRASS*	95%	80%
20%	PERENNIAL RYE	98%	90%
30%	CREEPING RED FESCUE	97%	85%
100%			

   *MINIMUM OF TWO (EQUAL PROPORTIONS) VARIETIES AS LISTED IN CORNELL RECOMMENDATIONS FOR TURFGRASS.

   SHADE:

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
25%	KENTUCKY BLUE GRASS**	95%	80%
20%	PERENNIAL RYE	98%	90%
35%	CREEPING RED FESCUE	97%	85%
20%	CHEWINGS RED FESCUE	97%	85%
100%			

   **SHADE TOLERANT VARIETY

3. SEEDING
   A. APPLY SEED UNIFORMLY BY CYCLONE SEEDER CULTI-PACKER OR HYDRO-SEEDER AT RATE INDICATED.
   B. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS:
      - A UNIFORM BLANKET OF STRAW APPLIED AT A RATE OF TWO (2) TONS PER ACRE MINIMUM, TO BE APPLIED ONCE SEEDING IS COMPLETE.
      - WOOD FIBER CELLULOSE APPLIED WITH SEED MIX BY HYDROSEEDER AT RATE OF TWO THOUSAND (2,000) POUNDS PER ACRE.
   C. ALL SEEDED SLOPES 3:1 OR GREATER SHALL BE PROTECTED FROM EROSION WITH JUTE MESH OR APPROVED EQUAL.
   D. IRRIGATE TO FULLY SATURATE SOIL LAYER, BUT NOT TO DISLODGE PLANTING SOIL.
   E. UNLESS OTHERWISE DIRECTED IN WRITING, SEED FROM MARCH 15TH TO JUNE 15TH, AND FROM AUGUST 15TH TO OCTOBER 15TH.

COMPACTION REQUIREMENTS:

LOCATION	COMPACTION	TESTING FREQUENCY
PIPE TRENCH BACKFILL (IN PAVED AREAS)	95% ASTM D1557	1 SERIES OF TESTS FOR EACH 150 FEET OR LESS OF TRENCH LENGTH. SERIES INCLUDE THREE COMPACTION TESTS SPREAD EVENLY ALONG TRENCH PROFILE.
PIPE TRENCH BACKFILL (IN UNPAVED AREAS)	90% ASTM D1557	1 SERIES OF TESTS FOR EACH 150 LF OR LESS OF TRENCH LENGTH. SERIES INCLUDE THREE COMPACTION TESTS SPREAD EVENLY ALONG TRENCH PROFILE.
PIPE BEDDING AND PIPE ZONE BACKFILL	95% ASTM D1557	1 TEST FOR EACH 150 LF OR LESS OF TRENCH LENGTH.
PAVEMENT SUBBASE AND LAST LIFT OF SELECT GRANULAR FILL (FILL BETWEEN SHEET PILES)	95% ASTM D1557	1 TEST FOR EVERY 2,000 SQUARE FEET OF LIFT AREA BUT NO FEWER THAN TWO TESTS PER LIFT

NO	DATE	DESCRIPTION	INT.
0	2023-07-27	INITIAL SUBMISSION	DWY
1	2024-07-03	SUBMIT TO TOWNSHIP	DWY

NOTICE

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

DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

STATE OF NEW YORK · DAVID W. YOUNG · 087156 · LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID:	DRAWN:
21-274.02-DY	JAM
DATE: 2023-07-27	DESIGN: DWY
SCALE: AS NOTED	CHECKED: DWY

PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

PLAN STATUS:	SHEET NUMBER:
DESIGN	C-216

DOLLAR GENERAL - BASOM

STORE #25355

Project Data

Project Description

Ground up prefabricated metal building that will house a retail space.

***Governing Codes**

- 2020 Existing Building Code of New York State
- 2020 Building Code of New York State
- 2009 ICC ANSI A117.1, Accessible and Usable Buildings
- 2020 Energy Conservation Construction Code of New York State
- 2020 Plumbing Code of New York State
- 2020 Mechanical Code of New York State
- 2020 Fuel Gas Code of New York State
- 2020 Fire Code of New York State

* All work shall be performed in accordance with all Federal, State, and Local codes. All work shall be done with a professional standard of care using current construction practices

Use and Occupancy (Chapter 3)

M - Mercantile

Allowable Building Areas & Heights (Chapter 5)

IBC SECTION	BUILDING HEIGHT	
504.4	ALLOWABLE HEIGHT	2 STORIES
504.3	ACTUAL HEIGHT	55'-0" **1 STORY 20'-0"**
506.2	**BUILDING AREA**	
	ALLOWABLE AREA (PER FLOOR)	12,500 SQ FT
	AREA OF SUITE	**10,239 SQ FT**

Type of Construction (Chapter 6)

II-B

BUILDING ELEMENT	RATING
PRIMARY STRUCTURAL FRAME	0 HR
BEARING WALLS	
EXTERIOR	0 HR
INTERIOR	0 HR
NON-BEARING WALLS AND PARTITIONS	
EXTERIOR	0 HR
INTERIOR	0 HR
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0 HR
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0 HR
EXTERIOR WALL BASED ON SEPARATION DISTANCE	0 HR

Interior Finishes (Chapter 8)

WALLS AND CEILINGS	CLASS C - ROOMS AND ENCLOSED SPACES
FLOORS	CLASS II

Means of Egress (Chapter 10)

MAIN FLOOR

Mercantile 9,038 SF @ 60 SF/OCC = 151 Occupants
Mercantile (Storage, Stock Areas) 1,201 SF @ 300 SF/OCC = 5 Occupants

Total Occupant Load **156 Occupants**

REQUIRED WIDTH: Doors and Other Components, 0.2 inches per occupant, Section 1005.3.2

	Occupant Load	Req'd Width, Inches	Actual Width, Inches
Main Floor :	156	31.2	Exceeds

Exit Travel Access Distance: 200' max, (1017.2)

Common Path of Egress: 75' max, (1006.2.1)

Dead End Corridors: 20' max, (1020.4)

Fixture Counts: (Chapter 29)

Water Closets:
Required: 1 per sex (2 unisex per 2902.2.5)
Provided: 1 Men's & 1 Women's (2 total)

Lavatories:
Required: 1 per sex (2 total)
Provided: 2 total

Drinking Fountain:
Required: 1 per 1,000 Occupants
Provided: 2

Utility Sink:
Required: 1
Provided: 1

Energy Summary:

Climate Zone: 5A

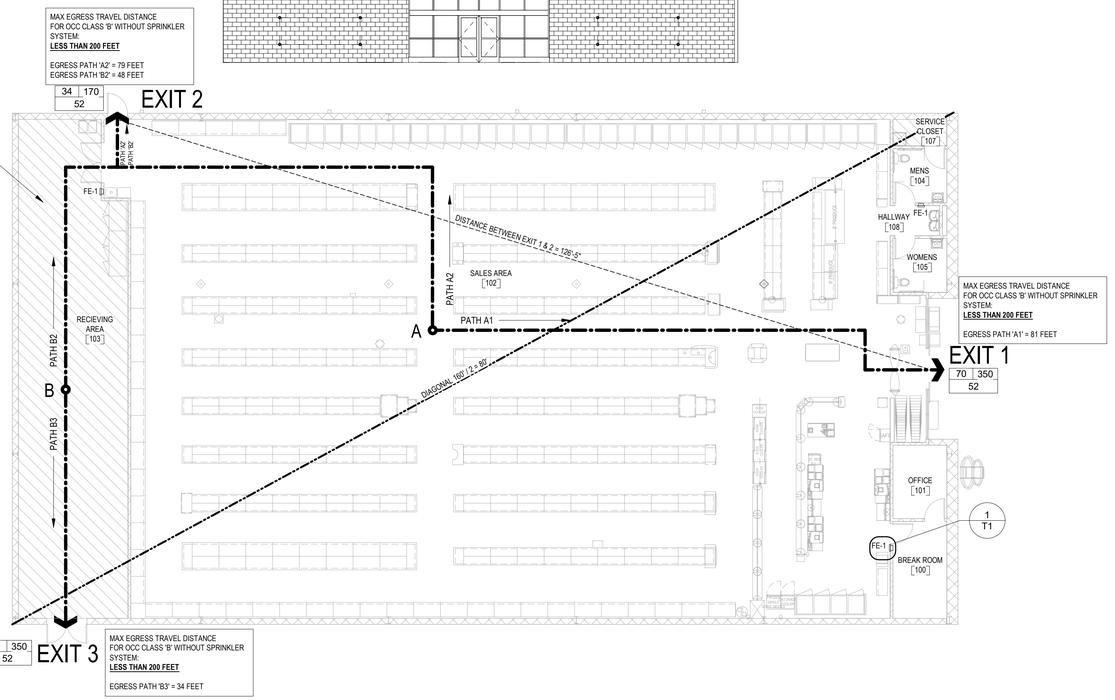
Prescriptive Method

Roof/Ceiling Assembly:
Description of Assembly: Standing Seam metal roof with R-30 Liner System and R-5 thermal blocking at roof pre-engineered roof purlins.
U-Value of total Assembly: U-0.035 (U-0.035 Max)
Skylights in each assembly: N/A

Exterior Wall (South):
Description of Assembly: Metal liner panel, 8" metal building structure with R-25 liner system, plywood sheathing, 2" air gap, and 4" freestanding CMU veneer.
U-Value of total Assembly: U-0.036 (U-0.052 Max)
Openings: Storefront Sliding door system
U-Value of Assembly: U-0.28 (U-0.38 Fixed Max, U-0.77 Entrance Max)
Solar Heat-Gain Coefficient: 0.27 (0.46 Max for 0.2 ≤ PF < 0.5)
Projection Factor: 0.4
Door R-Values: Glass Doors in Glazing System

Exterior Wall (West, East, North):
Description of Assembly: Metal liner panel, 8" metal building structure with R-25 liner system, and metal building panel.
U-Value of total Assembly: U-0.037 (U-0.052 Max)
Openings: Opaque doors on North and South Walls
U-Value of Assembly: N/A
Solar Heat-Gain Coefficient: N/A
Projection Factor: N/A
Door R-Values: R-6 (R-4.75 Min)

Floors Slab On Grade:
Description of Assembly: 4" Concrete slab with 24" deep R-10 Vertical Insulation
F-Value of total Assembly: F-0.54 (F-0.54 Max)
R-Value of Insulation: R-10
Horizontal/Vertical Requirement: R-10 for 24" Below
Slab Heated: No



FIRE EXTINGUISHER SCHEDULE				
FIRE EXTINGUISHER		QTY. IN ROOM		
DESCRIPTION / REMARKS	MFR. OR EQUAL	102	103	108
FE-1 SEMI-RECESSED CABINET	J.L. INDUSTRIES AMBASSADOR SERIES **MODEL No. 1017V17** - ZINC PLATED PULL HANDLE - ROLLED STEEL TUB - VERTICAL RED DECAL ON GLASS "FIRE EXTINGUISHER" **#LDCVRFE**	1	1	1
U.L. 3A-40BC EXTINGUISHER	J.L. INDUSTRIES COSMIC 10LB MODELS	1	1	1

CODE ANALYSIS SYMBOLS LEGEND

34 | 226 — STAIR/DOOR EGRESS WIDTH (INCHES)
STAIR/DOOR EXIT CAPACITY
30 — ANTICIPATED LOAD

A — ROUTE OF EXIT ACCESS

EGRESS EXIT

FE-1 — FIRE EXTINGUISHER CABINET

2 / T1 LIFE SAFETY PLAN

3/32" = 1'-0"

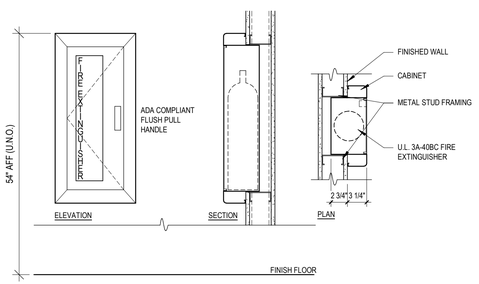
SQUARE FOOTAGE LEGEND	
TOTAL SQUARE FOOTAGE	10,640 S.F.
TOTAL LEASABLE FOOTAGE	10,640 S.F.
OVERALL BUILDING DIMENSIONS	76'-0" X 140'-0"
SALES FLOOR DIMENSIONS	74'-0" X 112'-10"
SALES AREA	8,513 S.F.
RECEIVING AREA	1,177 S.F.
BREAK RM. & OFFICE AREA	205 S.F.
REST ROOM, & HALL AREA	205 S.F.
MISCELLANEOUS	540 S.F.

NOTES:
1. BUILDING MUST COMPLY WITH ALL BUILDING (FEDERAL, STATE AND LOCAL), FIRE, ADA AND HEALTH DEPARTMENT CODES.

2. NO TAPERED COLUMNS ALLOWED.

3. MAINTAIN INTERIOR CLEAR SALES SPACE AS REQUIRED ON PLANS.

DGP21 AND DGHP21 PROTOTYPE "A"
10,640 SF WITH LEFT REAR DELIVERY



1 / T1 Fire Extinguisher Cabinet

1" = 1'-0"

GENERAL

T1	TITLE SHEET

CIVIL/LANDSCAPE

C1	DEMOLITION PLAN
C2	SITE PLAN
C3	GRADING PLAN
C4	UTILITY PLAN
L1	LANDSCAPE PLAN AND NOTES
C5	SITE PROFILES
C6-C8	CIVIL DETAILS
C9-C10	WASTEWATER TREATMENT DETAILS
C11	E & S PLAN
C12	E & S DETAILS
C13-C16	NYSDOT WORK ZONE DETAILS
C17	TRUCK ACCESS

OWNER

F1	FIXTURE PLAN

ARCHITECTURAL

A1	FLOOR PLAN
A2	EXTERIOR ELEVATIONS
A3	SECTIONS/DETAILS
A4	SCHEDULES
A5	DOOR DETAILS
A6	RESTROOM DETAILS
A7	SIGN DETAILS
A8	BRACING DETAILS
A9	CEILING PLAN
A10	ROOF PLAN

STRUCTURAL

S1	CONCRETE SUMMARY
S2	CONCRETE ANALYSIS AND MISC. NOTES

ELECTRICAL

E1.1	POWER PLAN
E1.2	REF. POWER PLAN
E1.3	ROOF POWER PLAN
E2	LIGHTING PLAN
E3	ELECTRICAL PANELS
EMS1	EMS LOW VOLTAGE PLAN
ES1	ELECTRICAL SITE PLAN

MECHANICAL

M0	MECHANICAL SCHEDULES AND DETAILS
M1	HVAC LAYOUT & SCHEDULE

PLUMBING

P0.1	PLUMBING DETAILS
P1.1	SANITARY PLAN
P2.1	DOMESTIC WATER & GAS PLAN

REQUIRED NATIONAL ACCOUNT VENDORS

		COMPANY	CONTACTS	PHONE #	REQUIRED ITEMS
SITE		RAINBIRD IRRIGATION	LOCAL RAIN BIRD DISTRIBUTER	WWW.RAINBIRD.COM	IRRIGATION SYSTEMS
CONCRETE	CONCRETE POLISHING	EUCLID CHEMICAL COMPANY	PHIL BRANDT	877-438-3826 PBrandt@euclidchemical.com	CONCRETE POLISHING SYSTEMS
		RETRO-PLATE SYSTEMS	SCOTT MAXFIELD	801-641-6796	CONCRETE POLISHING SYSTEMS
DOORS	STOREFRONT ENTRANCE	RECORD DOOR SYSTEMS	MARK COLLADO	scott.maxfield@retroplatesystem.com 704-290-0237 dollargeneral@recorddoors.com	IN,KY,MD, OH, PA,VA,WV — MODEL #5100 SERIES
		STANLEY ACCESS TECHNOLOGIES	MATTHEW D. MATTHEWS	919-208-4238 matt.matthews@sbdinc.com	AR,AZ,CA,CO,CT,DE,IL,IA,KS,LA,MA,ME,MI,MN,MO, ND,NE,NH,NJ,NM,NV,NY,OK,OR,RI,SD,TX,VT,WA,WI,WY — MODEL #DG2000
		ASSA ABLOY ENTRANCE SYSTEMS	ROSS MERKLING	609-528-2580 dollargeneral.besam.us@assaabloy.com	AL, FL, GA, MS, NC, SC, TN — MODEL #SL500
	INTERIOR DOORS	GIRTMAN AND ASSOCIATES	JUNE THOMPSON	615-964-6000 ext. 4527 dgconstruction@bass-security.com	INTERIOR DOORS AND FRAMES AND RESTROOM ACCESSORIES — AL,AR,AZ,CA,CO,FL,GA,IA,KS,LA,MS,MN,MO, NE,NM,NV,OK,OR,SC,SD,TN,TX,WA,WI,WY
		COOK & BOARDMAN GROUP	JOE HARRELL	336-837-0673 dgteam@cookandboardman.com	INTERIOR DOORS AND FRAMES AND RESTROOM ACCESSORIES — CT,DE,IL,IN,KY,MA,MD,ME,MI,NC,NH,NJ, NY,OH,PA,RI,VA,VT,WV
FINISHES		SHERWIN WILLIAMS	LOCAL SHERWIN WILLIAMS STORE		PAINT, PRIMER, CONCRETE SEALER AND BLOCK FILLER
		MC CUE CORPORATION	KEVIN O'NEILL	678-492-4026 konell@mccue.com	TRIM KIT INCLUDES BUMPER GUARDS AND CART STOP
HVAC	HVAC UNITS	YORK	CHRIS ZINK	501-398-7008 york-dollargeneral-be@jci.com	HVAC UNITS AR,CO,IL,IN,KS,KY,MO,OH,OK,OR,TN,WA,WV
		CARRIER	HASAN KHALIL BOB ECKWELLER	973-222-6742 hasan.khalil@carrier.com bob.eckweller@carrier.com	HVAC UNITS AL, AZ, CA, DE, FL, GA, LA, MD, MS, NC, NM, SC, TX,VA
		LENNOX	COLTON WHITESIDE	972-497-6652 lennoxnationalaccounts@lennoxind.com	HVAC UNITS CT,IA,MA,ME,MI,MN,ND,NE,NH,NJ,NY,PA,RI,SD,VT,WI,WY
	RTU CURBS	ROOF CURB SYSTEMS	CLIFTON REASOR	800-683-5848 DollarGeneral@roofcurb.com	RTU CURB
		CURBS PLUS INC.	ALLAN THRAILKILL	888-639-2872 alan.thrailkill@curbs-plus.com	RTU CURB
		KCC INTERNATIONAL INC.	GREG CONRAD	800-382-2872 gconrad@kcccurbs.com	RTU CURB
ELECTRICAL	ELECTRICAL SWITCH GEAR	CED - CONSOLIDATED ELECTRICAL DISTRIBUTORS	ROBERT DECKER	270-781-2229 robertd@cedbgky.com	ELECTRICAL SWITCH GEAR — AR,AZ,CA,CO,IA,IN,IL,LA,KS,KY,MI,MN,MO, MS,ND,NE,NM,NV,OK,OR,SD,TX,VA,WI,WY
		NESCO	CHRIS TRACY	800-244-6980 dollargeneral@needhamelectric.com	ELECTRICAL SWITCH GEAR — AL,CT,DE,FL,GA,MA,MD,ME,NC,NH,NJ, NY,OH,PA,RI,SC,TN,VA,VT,WV
	LIGHTING	USLED	JORGE HERRERA	713-337-3826 jerrera@usled.com	ELECTRICAL LIGHTING SUPPLIES — AR,CO,IA,IL,IN,KS,KY,MI,MN,MO, ND,NE,OH,OK,SD,WI,WV,WY
		LEDS	MICHAEL STRINGER KYLE KNAPP	920-915-4010 DGORDERS@leds-llc.com	ELECTRICAL LIGHTING SUPPLIES — AL,AZ,CA,CT,DE,FL,GA,LA,MA,MD,ME,MS,NC, NH,NJ,NM,NV,NY,OR,PA,RI,SC,TN,TX,VA,VT,WA
		D&P CUSTOM LIGHTING	NATIONAL ACCOUNT SALES	800-251-2200	CUSTOM POWER POLES
	LOW VOLTAGE SYSTEM	CROSSCOM NATIONAL	KEN MILLER	847-850-6298 dollargeneral@crosscomnational.com	LOW VOLTAGE & VOICE/DATA — CO,DE,FL,IA,IL,IN,KS,MD,ME,MI,MN,MO,ND, NE,NH,NJ,NY,OH,SD,VT,WI,WV,WY
		ASD	CHRIS RUDNITSKI	828-624-1046 crudnitski@asd-usa.com	LOW VOLTAGE & VOICE/DATA — AL,AR,AZ,CA,CT,GA,KY,LA,MA,MS,NC,NM,NV, OK,OR,PA,RI,SC,TN,TX,VA,WA
		GRAYBAR	JEROME BANNISTER	615-743-3202 office, 615-924-2135 cell DollarGeneral@graybar.com	CABLE TRAY
		EMERSON CLIMATE TECHNOLOGIES	TONY VERTUCA NATIONAL ACCOUNT EXECUTIVE WEBSITE: http://dollargeneralbid.emerson.com	404-824-9389 USER NAME: dollargeneralbid PASSWORD: $General1	EMS SUPPLIER NOTE: CUSTOMIZED DOLLAR GENERAL EMS PANEL REQUIRES STORE #, CITY, STATE, ZIP CODE & QTY. OF HVAC UNITS OF THE INSTALL SITE WHEN ORDERING.
		STANLEY CONVERGENT SECURITY SOLUTIONS	D'ETTA NEAVES	858-752-7821 Detta.Neaves@sbdinc.com (pre-sale bid) Al.Maier@sbdinc.com (post-award)	INTERIOR FIRE ALARM PANELS

PROTOTYPE MANAGEMENT TEAM

COMPANY	CONTACTS	PHONE #	
MJM ARCHITECTS	GARY CONWAY	615-244-8170 dgj@mjmarch.com	www.mjmarch.com
ENTECH	MITCH SIMPSON	615-373-2640 email@entechtn.com	www.entechtn.com

NATIONAL ACCOUNT & CONTACT INFORMATION SUBJECT TO CHANGE

The Broadway Group
Commercial Real Estate Development

REVISIONS:
1 06/01/2023 Issued for Permit

STORE 25355
7174 ALLEGHANY RD
BASOM - NEW YORK

REGISTERED ARCHITECT
MEGAN ELIZABETH KAUFMANN
043532
STATE OF NEW YORK
06/01/2023

DOLLAR GENERAL

STUDIO ARCHITECTURE

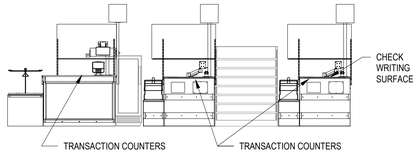
DATE: 04/07/2023

DRAWING TITLE: TITLE SHEET

SCALE: NO SCALE

SHEET NO.: T1

NOTE: FRONT CHECKOUT COUNTER TO BE PROVIDED BY DOLLAR GENERAL AND INSTALLED AT DOLLAR GENERAL'S DIRECTION. COUNTERS SHALL INCLUDE A PORTION OF AT LEAST 36" IN LENGTH WHICH IS NO MORE THEN 34" ABOVE THE FINISH FLOOR. COUNTERS SHALL BE ON AN ACCESSIBLE ROUTE.

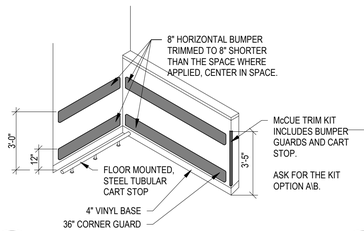


3 F1 SERVICE COUNTER DETAILS

1/4" = 1'-0"

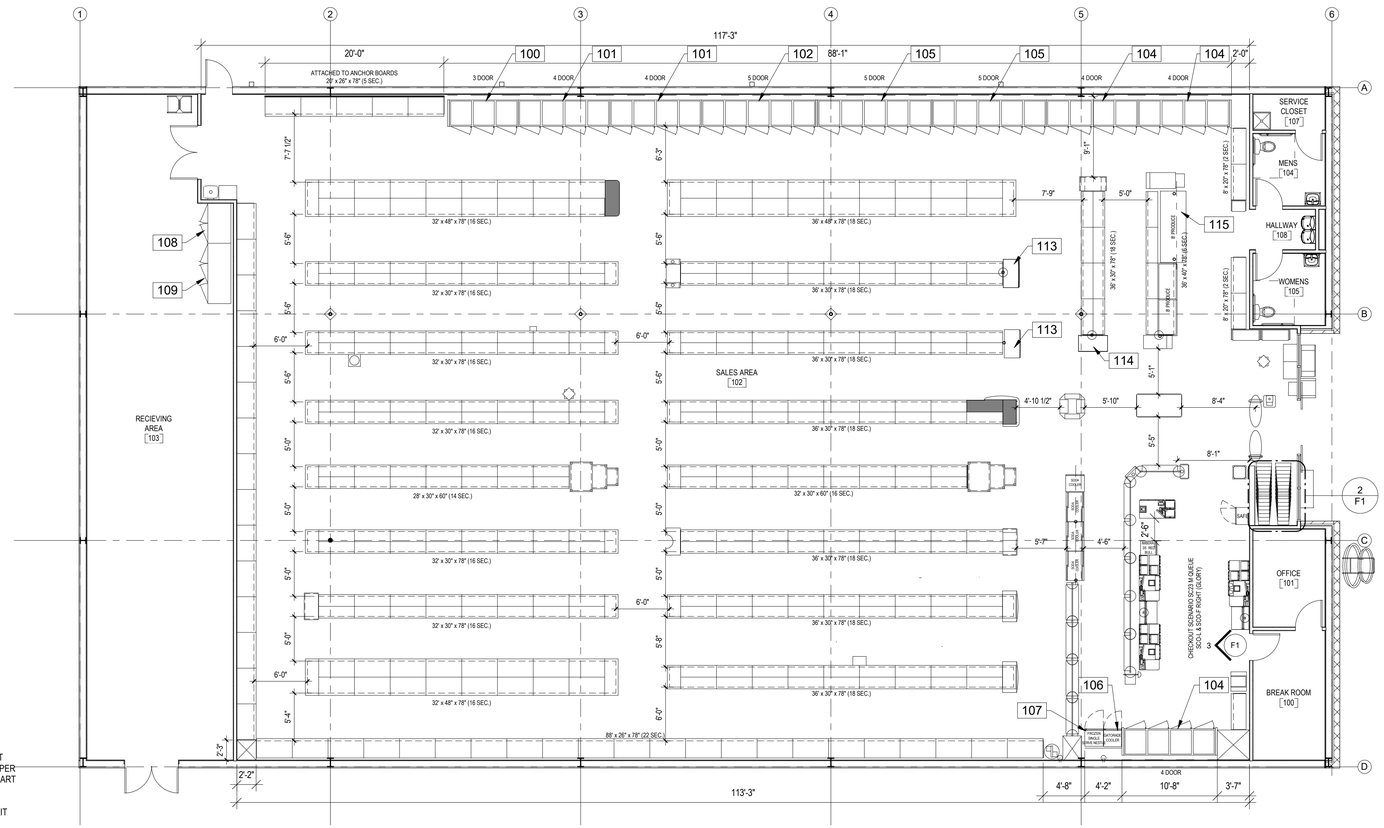
REFRIGERATION

100 - 3 DOOR LOW TEMP OR	HUSSMAN ZERO ZONE	RFL 3-DOOR RHZC30 3-DOOR
101 - 4 DOOR LOW TEMP OR	HUSSMAN ZERO ZONE	RFL 4-DOOR RHZC30 4-DOOR
102 - 5 DOOR LOW TEMP OR	HUSSMAN ZERO ZONE	RFL 5-DOOR RHZC30 5-DOOR
103 - 3 DOOR MID TEMP OR	HUSSMAN ZERO ZONE	RFM 3-DOOR RHCC30 4-DOOR
104 - 4 DOOR MID TEMP OR	HUSSMAN ZERO ZONE	RFM 4-DOOR RHMC30 4-DOOR
105 - 5 DOOR LOW TEMP OR	HUSSMAN ZERO ZONE	RFI 5-DOOR RHCC30 5-DOOR
106 - 1 DOOR MID TEMP	TRUE	GDM-12-HC-TSL01
107 - 1 DOOR LOW TEMP	TRUE	GDM-12F-HC-LD
108 - 2 DOOR MID TEMP	MAXX COLD	MCRT-49FD
109 - 3 DOOR LOW TEMP	MAXX COLD	MCFT-72FD
110 - CLICK AND COLLECT FREEZER	TURBO AIR	TGF-15SD(-)N
111 - CLICK AND COLLECT COOLER	TURBO AIR	TGM-15SD(-)N6
112 - SLIDING DOOR PASS-THRU	TRUE	GDM-33CPT-54-HC-LD
113 - ENDCAP COOLER	IDW	GS-4
114 - ENDCAP COOLER	IDW	GS-5
115 - PRODUCE COOLER	HOWARD MCCRAY	SC-OP35E-8L-LED-DG (ONLY IN SELECTED STORES)
116 - 1-DOOR MID TEMP	TRUE	GDM-10-HC-TSL01



2 F1 CART ENCLOSURE DETAIL

1/8" = 1'-0"



1 F1 FIXTURE PLAN

1/8" = 1'-0"

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MEGAN ELIZABETH KAUFMANN
043532
STATE OF NEW YORK
06/01/2023

DOLLAR GENERAL

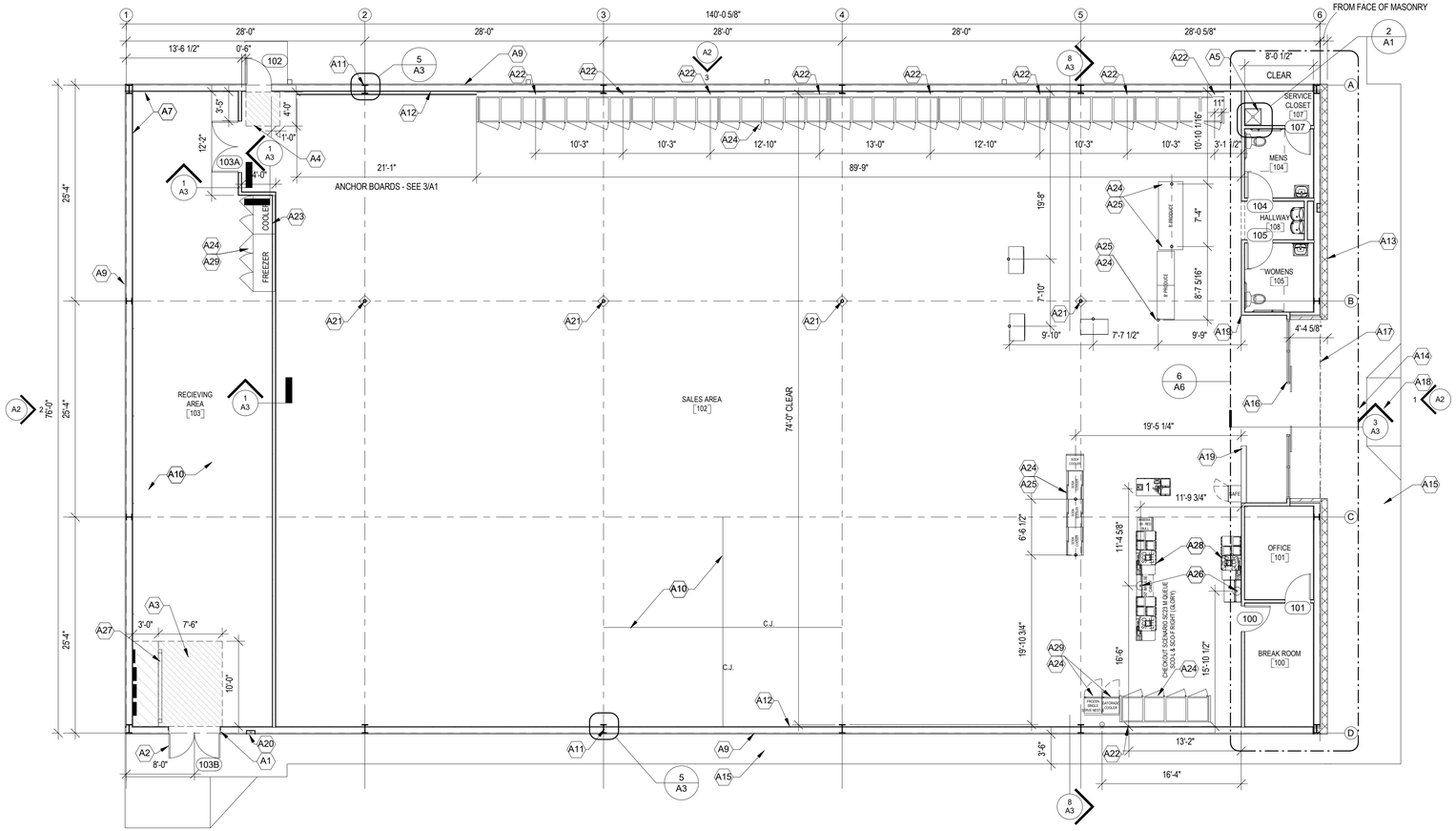
STUDIO ARCHITECTURE

DATE: 04/07/2023

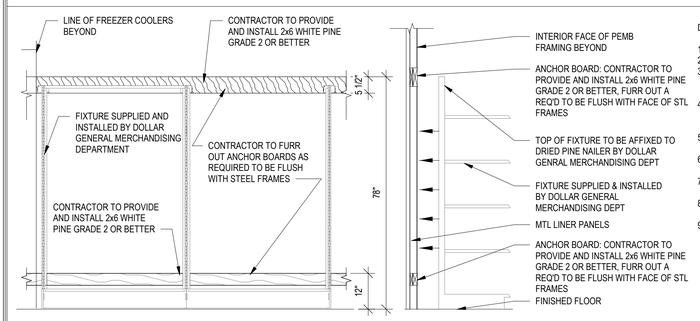
DRAWING TITLE: FIXTURE PLAN

SCALE: AS NOTED

SHEET NO.: F1



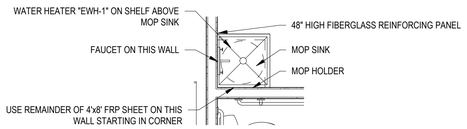
1 FLOOR PLAN
A1 1/8" = 1'-0"



DRINK FIXTURE WALL MOUNTING SUPPORT NOTES:

1. PROVIDE AND INSTALL 2X6 WHITE PINE - GRADE 2 OR BETTER.
2. PROVIDE AND INSTALL 2X4 WHITE PINE - GRADE 2 OR BETTER.
3. FASTEN THE 2X6 TO THE WALL WITH THE TOP EDGE OF THE BOARD AT 78" A.F.F., REFER TO FINAL DG FIXTURE PLAN FOR LENGTH AND LOCATION OF BOARD.
4. FASTEN THE 2X4 TO THE WALL WITH THE TOP EDGE OF THE BOARD AT 12" A.F.F., REFER TO FINAL DG FIXTURE PLAN FOR LENGTH AND LOCATION OF BOARD.
5. PRE-DRILL PILOT HOLES IN ALL BOARDS PRIOR TO INSTALLATION TO PREVENT WOOD SPLITS.
6. SECURE THE 2X6 WITH TWO SELF-TAPPING SCREWS. MINIMUM SCREW SIZE IS 4"x 1/4".
7. FASTEN THE 2X4 WITH WITH SELF-TAPPING SCREW PER WALL STUD. MINIMUM SCREW SIZE IS 4"x 1/4".
8. CAULK THE EDGES OF THE 2X6 AT THE TOP AND BOTTOM WHERE IT MEETS THE WALL PRIOR TO PAINTING.
9. PRIME AND PAINT BOTH BOARDS TO MATCH WALL COLOR.

3 ANCHOR BD DETAILS
A1 1/2" = 1'-0"



2 ENLARGED PLAN AT MOP SINK
A1 3/8" = 1'-0"

FLOOR PLAN KEYED NOTES

A1 RECEIVING DOOR BUZZER
A2 2" DOOR VIEWER.
A3 STRIPE FLOOR FOR DESIGNATED CLEAR EGRESS PATH (PAINT YELLOW) AND DESIGNATED EMS PANEL CLEARANCE (PAINT RED).
A4 STRIPE FLOOR FOR DESIGNATED CLEAR ADA EGRESS PATH (PAINT YELLOW.)
A5 PROVIDE AND INSTALL WATER HEATER ABOVE THE MOP SINK. REFER TO PLUMBING DRAWINGS FOR SIZE.
A7 METAL LINER PANELS TO 8'-0" A.F.F. (BY PRE-ENGINEERED BUILDING MANUFACTURER).
A9 METAL BUILDING PANELS (BY PRE-ENGINEERED BUILDING MANUFACTURER).
A10 CONCRETE SLAB WITH STRUCTURAL MIN. 6x6xW1.4 WELDED WIRE MESH OVER POLYETHYLENE VAPOR BARRIER (MIN. 10 MM THICK) OVER CRUSHED STONE BASE, TYPICAL, OR EQUIVALENT. PROVIDE CONTROL JOINTS AT 14'-0" ON CENTER EACH WAY MAX. SEE STRUCTURAL.
A11 METAL BUILDING FRAME. REFER TO DETAIL 5/A3 FOR ADDITIONAL INFORMATION.
A12 METAL LINER PANELS (28/29 GAUGE) WITH 1/2" GYPSUM BOARD. SEE INTERIOR ELEVATIONS ON SHEET A4. PROVIDE R-25 METAL BUILDING INSULATION.
A13 8" SMOOTH FACED CMU PAINTED SW #7037 BALANCED BEIGE. ALIGN FACE OF BLOCK WITH STEEL GIRT. PROVIDE PROPER ANCHORAGE TO STRUCTURE.
A14 SLOPE CONCRETE MIN. 1/8" PER FOOT MIN. AWAY FROM BUILDING. REFER TO CIVIL.
A15 COORDINATE CONCRETE SIDEWALK WITH CIVIL AND BROOM FINISH, TYP.
A16 BRONZE STOREFRONT SYSTEM. REFER TO SHEETS A4 AND A5 FOR ADDITIONAL INFORMATION. CONTINUE METAL LINER PANELS TO DECK.
A17 LINE OF SOFFIT OR CANOPY ABOVE.
A18 A.D.A. COMPLIANT H.C. RAMP WITH PAINTED SIDES TO ACCESS PARKING STALLS, REFER TO CIVIL DRAWINGS.
A19 MC CUE CART AND BUMPER GUARDS 3'-5" A.F.F., ORDER TRIMKIT FOR THIS PROTOTYPE.
A20 WALL HYDRANT. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
A21 ROUND STEEL PIPE COLUMN WITH RECESSED BASE PLATE-PAINT SECOND CONCRETE POUR SW6991 BLACK MAGIC. PAINT STEEL COLUMN SW7005 PURE WHITE. WRAP COLUMN WITH TIGHT LOOP CARPET (BLACK) 48" HIGH AT BASE.
A22 WALL OUTLETS FOR BANKS OF COOLERS AND FREEZERS. SEE ELECTRICAL FOR DETAILS. OUTLETS TO BE 11" FROM RIGHT SIDE OF UNITS AS YOU FACE THEM FROM THE SALES FLOOR.
A23 MAINTAIN 2" AIR GAP BETWEEN THE REACH IN COOLER / FREEZER AND THE WALL FOR VENTILATION.
A24 REFRIGERATION BY DOLLAR GENERAL.
A25 FREESTANDING COOLER/FREEZERS (INCLUDING PRODUCE COOLER AND DISPLAY LIGHTING) TO BE HARDWIRED THROUGH SO CORD. GC TO LEAVE BOTTOM OF CORD HANGING AT 80" A.F.F. (SEE ELECTRICAL). SO CORD ANCHORED TO PURLINS ABOVE. COORDINATE LOCATION WITH FINAL DOLLAR GENERAL FIXTURE PLAN.
A26 POWER POLE. COORDINATE FINAL LOCATION WITH FINAL DOLLAR GENERAL FIXTURE PLAN (F01).
A27 MC CUE RAILING IN FRONT OF ELECTRICAL PANEL. 8'-0" LONG WITH TWP TOP RAILINGS AND NO MIDDLE POST.
A28 NON-REFRIGERATION EQUIPMENT (REGISTERS, HIGI KIOSK, ATM, KEYME) BY DOLLAR GENERAL.
A29 REFRIGERATION AND NON-REFRIGERATION EQUIPMENT ON WALLS TO BE POWERED THROUGH OUTLETS - SEE ELECTRICAL. COORDINATE LOCATION WITH FINAL DOLLAR GENERAL FIXTURE PLAN.

GENERAL FLOOR PLAN LEGEND

PROPOSED WALL
100 A DOOR TAG
X KEYNOTE SYMBOL
NEW DOOR AND FRAME

TYPICAL SYMBOLS LEGEND

DETAIL # / A101 / DWG # — ELEVATION REFERENCE
DETAIL # / A101 / DWG # — MULTIPLE ELEVATION REFERENCES
DTL # / A101 / DWG # — SECTION REFERENCE
101 ROOM NAME — ROOM NAME & NUMBER
0 — COLUMN LINES
SPOT ELEVATION
1 REVISION #
? KEY NOTE
DETAIL # / A101 / DWG # — DETAIL OR ENLARGED PLAN

NOTE:

THE ALLOWABLE CLEAR DISTANCE BEHIND THE SALES FLOOR FIXTURES IS 1-1/2" MAXIMUM TO THE FACE OF THE DRYWALL. IF IT IS LARGER THAN THIS, PROVIDE HORIZONTAL WOOD FURRING STRIPS, PAINTED WALL COLOR, MOUNTED ON THE DRYWALL AT 78" AFF TO THE TOP OF THE STRIP TO REDUCE THE GAP TO LESS THAN 1-1/2".

The Broadway Group
Commercial Real Estate Development

REVISIONS:
1 06/01/2023 Issued for Permit

STORE 25355
7174 ALLEGHANY RD
BASOM - NEW YORK

REGISTERED ARCHITECT
MEGAN ELIZABETH KAUFMANN
043532
STATE OF NEW YORK
06/01/2023

DOLLAR GENERAL®

STUDIO ARCHITECTURE

DATE: 04/07/2023
DRAWING TITLE: FLOOR PLAN
SCALE: AS NOTED
SHEET NO.: A1

FINISHES

EXTERIOR FINISHES ARE TO MATCH OR BE EQUAL TO VP METAL BUILDING SYSTEM'S FINISH SELECTION UNLESSS AUTHORITY HAVING JURISDICTION DOES NOT ALLOW.

PEMB VENDOR: VP BUILDINGS — ATTN: RANDY SPEARS 205-907-8176; STAR BUILDING SYSTEMS — ATTN: JEFF HORN 866-664-8899

FINISHES	VP: COOL EGYPTIAN WHITE	VP: COOL DARK BRONZE	VP: BRONZE	VP: COOL COTTON WHITE	VP: GALVALUME	STAR: LIGHT STONE	STAR: MEDIUM BRONZE KYNAR 500	STAR: BRONZE	STAR: POLAR WHITE	STAR: GALVALUME
GUTTERS	●					●				
DOWN SPOUTS	●					●				
SIDE AND REAR METAL WALL PANELS & TRIM, RECEIVING & EMERGENCY EXIT DOORS (EXTERIOR OF DOORS TO BE PAINTED, REFER TO DOOR SCHEDULE)	●					●				
ARCHITECTURAL BLOCK AT BUILDING FACADE TO BE PRE-FINISHED OR PAINTED (2 COATS - LOXON XP MASONRY COATING A24W400 SERIES) TO MATCH THE METAL WALL PANEL.	●					●				
FLAT METAL SOFFIT AT STOREFRONT VESTIBULE.				●					●	
BUILDING FASCIA WALL, PARAPET OVER ENTRANCE, AND CANOPY		●					●			
STOREFRONT SYSTEM			●					●		
STANDING SEAM METAL ROOF PANELS					●					●
INTERIOR SALES AND RECEIVING FLOOR LINER PANELS				●					●	

NUCOR BUILDING SYSTEMS — ATTN: BOB BARRY 315-622-4440; BIG BEE STEEL BUILDINGS — ATTN: KEVIN BUSLER 800-633-3378

FINISHES	NUCOR: LIGHT STONE	NUCOR: MEDIUM BRONZE KYNAR 500	NUCOR: BRONZE	NUCOR: POLAR WHITE	NUCOR: GALVALUME	BIG BEE: SANDSTONE	BIG BEE: BURNISHED SLATE	BIG BEE: BRONZE	BIG BEE: POLAR WHITE	BIG BEE: GALVALUME
GUTTERS	●					●				
DOWN SPOUTS	●					●				
SIDE AND REAR METAL WALL PANELS & TRIM, RECEIVING & EMERGENCY EXIT DOORS (EXTERIOR OF DOORS TO BE PAINTED, REFER TO DOOR SCHEDULE)	●					●				
ARCHITECTURAL BLOCK AT BUILDING FACADE TO BE PRE-FINISHED OR PAINTED (2 COATS - LOXON XP MASONRY COATING A24W400 SERIES) TO MATCH THE METAL WALL PANEL.	●					●				
FLAT METAL SOFFIT AT STOREFRONT VESTIBULE.				●					●	
BUILDING FASCIA WALL, PARAPET OVER ENTRANCE, AND CANOPY		●					●			
STOREFRONT SYSTEM			●					●		
STANDING SEAM METAL ROOF PANELS					●					●
INTERIOR SALES AND RECEIVING FLOOR LINER PANELS				●					●	

CHIEF BUILDINGS — ATTN: ERIN SULLIVAN 800-845-1767; PREFERRED COLORS IF ALTERNATE EXTERIOR MATERIALS ARE USED INSTEAD OF METAL PANELS

FINISHES	CHIEF: PARCHMENT	CHIEF: ANTIQUE BRONZE	CHIEF: BRONZE	CHIEF: POLAR WHITE	CHIEF: GALVALUME	PREFERRED: SHERWIN WILLIAMS #7037 - "BALANCED BEIGE"	PREFERRED: SHERWIN WILLIAMS #7041 - "VAN DYKE" BROWN	PREFERRED: BRONZE	PREFERRED: WHITE BY PEMB MANUFACTURER	PREFERRED: GALVALUME
GUTTERS	●					●				
DOWN SPOUTS	●					●				
SIDE AND REAR METAL WALL PANELS & TRIM, RECEIVING & EMERGENCY EXIT DOORS (EXTERIOR OF DOORS TO BE PAINTED, REFER TO DOOR SCHEDULE)	●					●				
ARCHITECTURAL BLOCK AT BUILDING FACADE TO BE PRE-FINISHED OR PAINTED (2 COATS - LOXON XP MASONRY COATING A24W400 SERIES) TO MATCH THE METAL WALL PANEL.	●					●				
FLAT METAL SOFFIT AT STOREFRONT VESTIBULE.				●					●	
BUILDING FASCIA WALL, PARAPET OVER ENTRANCE, AND CANOPY		●					●			
STOREFRONT SYSTEM			●					●		
STANDING SEAM METAL ROOF PANELS					●					●
INTERIOR SALES AND RECEIVING FLOOR LINER PANELS				●					●	

ELEVATION KEYED NOTES

E1 SIGN FURNISHED AND INSTALLED BY DOLLAR GENERAL CORP. WITH CIRCUIT AS NOTED ON ELECTRICAL PLAN. SIGN TO BE CENTERED ON FRONT OF BUILDING. CONTRACTOR IS TO PROVIDE ADEQUATE BLOCKING AS REQUIRED BY SIGN MANUFACTURER TO SUPPORT SIGN WEIGHT OF UP TO 1,400 LBS. EXTERIOR CANOPY SIGN SHALL BE SUPPORTED BY THE FACE OF THE CANOPY. CONTRACTOR IS TO PROVIDE ADEQUATE STRUCTURE TO SUPPORT SIGN. COORDINATE THE PROPER SIGNAGE TO BE USED WITH DOLLAR GENERAL.

E2 FLOOD LIGHT. REFER TO ELEC. DRAWINGS FOR ADDITIONAL INFO.

E3 WALL PACK. REFER TO ELEC DRAWINGS FOR ADDITIONAL INFO.

E4 TRIM - SEE FINISH SCHEDULE FOR COLOR.

E5 GUTTER AND DOWNSPOUT - SEE FINISH SCHEDULE FOR COLOR.

E6 8" SPLIT FACE CONCRETE MASONRY UNIT.

E7 STANDING SEAM METAL ROOF.

E8 PRE-FINISHED METAL WALL PANELS FOR FASCIA AND PARAPET OVER ENTRANCE, REVERSED RIB PROFILE.

E9 PRE-FINISHED METAL WALL PANELS FOR SIDE AND REAR. PROVIDE TAMPER RESISTANT FASTENERS FOR BOTTOM 8'-0".

E10 VENT FOR BATHROOM EXHAUST. REFER TO MECHANICAL DRAWING M1 FOR ADDITIONAL INFORMATION.

E11 DOOR BUZZER. REFER TO ELECTRICAL DRAWING E1 FOR ADDITIONAL INFORMATION.

E12 HVAC UNITS MOUNTED ON ROOF. REFER TO MECHANICAL SHEET M1 FOR ADDITIONAL INFORMATION.

E13 OUTSIDE AIR TEMP. SENSOR MOUNTED OVER RECEIVING DOOR AT 9'-0" A.F.F.

E14 MINIMUM EAVE HEIGHT IS 14'-0" A.F.F.

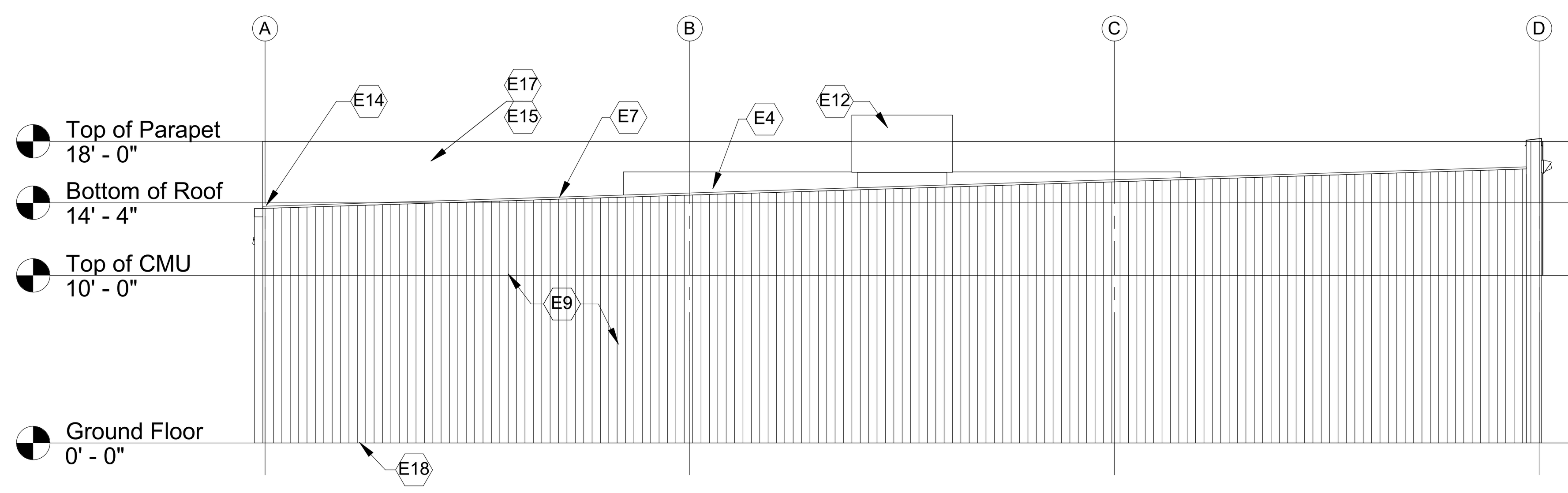
E15 PARAPET BEYOND.

E16 IN NORTHERN CLIMATES, PROVIDE SNOW GUARDS ON ROOF PER LOCAL CODE.

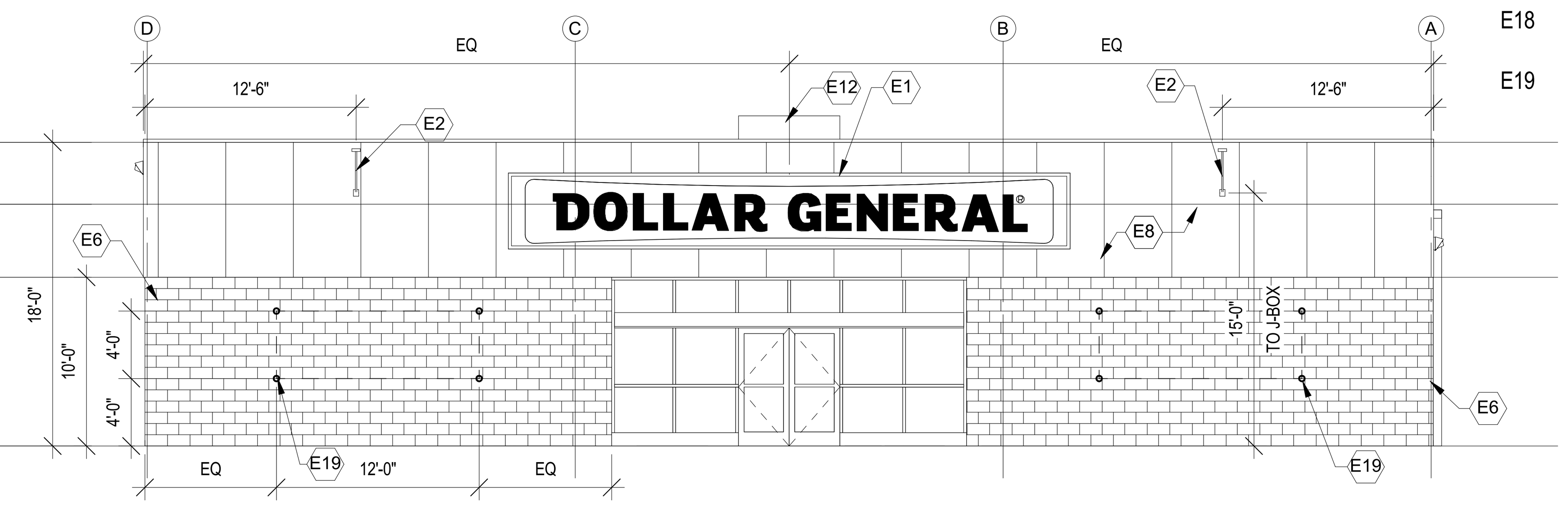
E17 EXTEND PARAPET WALL UP AS NEEDED TO SCREEN ROOF MOUNTED EQUIPMENT IF REQUIRED BY LOCAL ORDINANCE.

E18 FINISH GRADE TO BE A MINIMUM OF 6" BELOW FINISHED FLOOR LEVEL AT ALL NONPAVED AREAS. REFER TO CIVIL DRAWINGS.

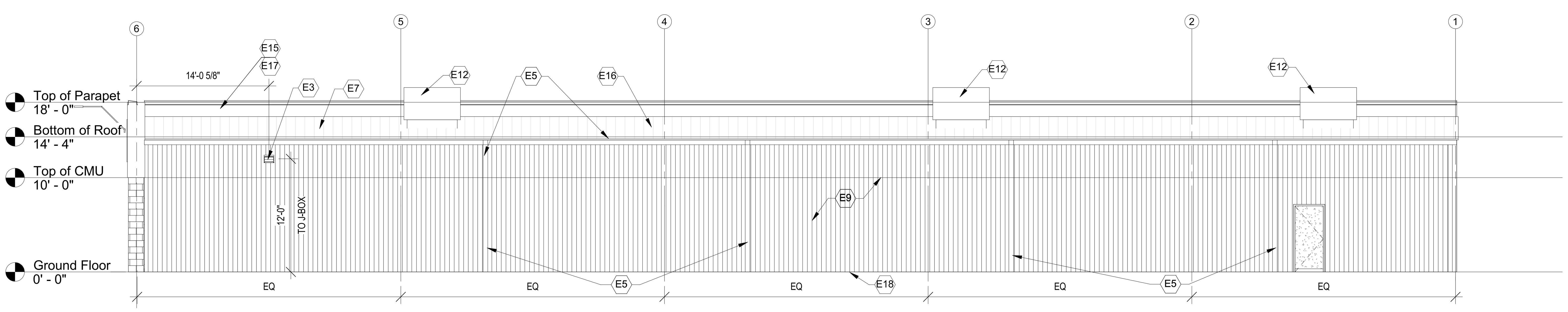
E19 1/2" DIAMETER x 6" LONG STEEL EYE BOLTS (CLOSED) WITH 1" DIAMETER OPENINGS. 4 BOLTS TO BE LOCATED AS SHOWN EACH SIDE OF ENTRY. TOTAL OF 8 BOLTS.



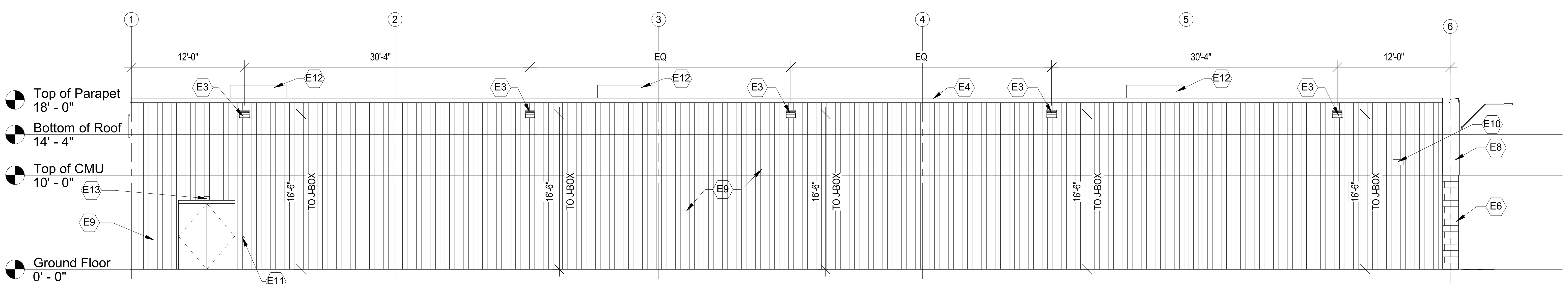
2 A2 REAR ELEVATION
1/8" = 1'-0"



1 A2 FRONT ELEVATION
1/8" = 1'-0"



3 A2 LOW SIDE ELEVATION
1/8" = 1'-0"



4 A2 HIGH SIDE ELEVATION
1/8" = 1'-0"

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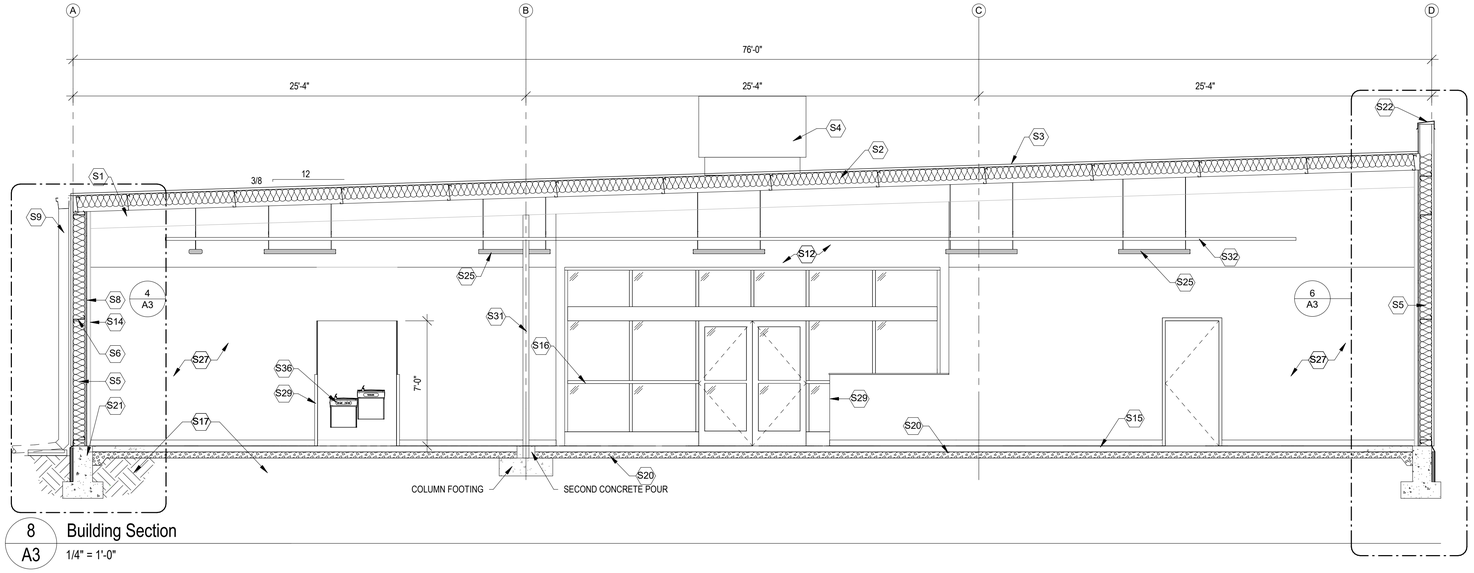
STATE OF NEW YORK

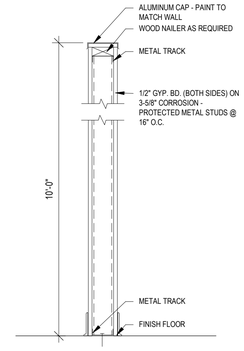
DOLLAR GENERAL

KC STUDIO ARCHITECTURE

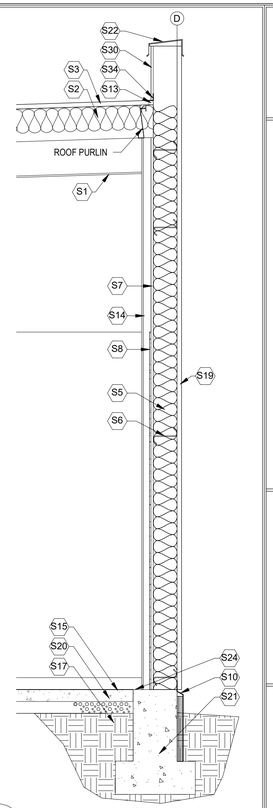
DATE: 04/07/2023
DRAWING TITLE: EXTERIOR ELEVATIONS
SCALE: 1/8" = 1'-0"
SHEET NO. A2



8 A3 Building Section
1/4" = 1'-0"



7 A3 Wall Section - Interior Partition to 10'-0"
1/2" = 1'-0"



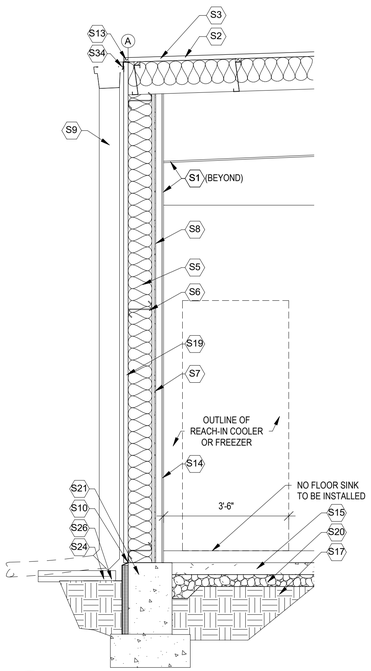
6 A3 Wall Section - Exterior High Side
1/2" = 1'-0"

SECTION KEYED NOTES

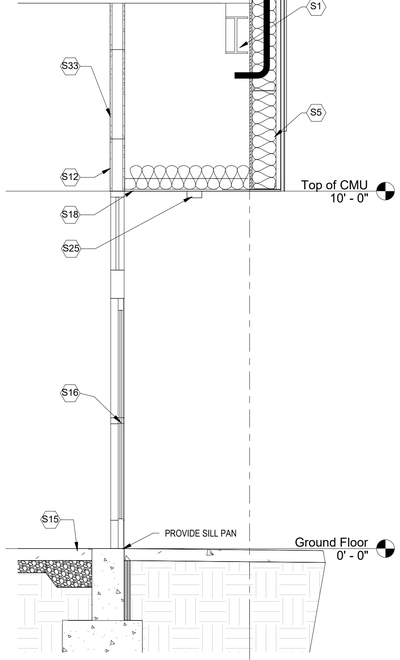
S1	PRE-ENGINEERED METAL BUILDING SYSTEM BY BUILDING MANUF.
S2	R-30 LINER SYSTEM WITH R-5 THERMAL BLOCKS AT EACH PURLIN. (BY PEMB) - INSULATION SYSTEM TO LEAVE BOTTOM OF PURLINS EXPOSED FOR ATTACHMENTS
S3	STANDING SEAM METAL ROOF - GALVALUME FINISH. APPLY ROOF MASTIC BETWEEN PANELS PER MANUFACTURER RECOMMENDATIONS.
S4	ROOF MOUNTED HVAC UNIT. SEE MECH.
S5	R-25 LINER SYSTEM. BY METAL BUILDING MANUFACTURER.
S6	8" METAL BUILDING GIRT.
S7	VERTICAL METAL LINER PANELS.
S8	12" GYPSUM BOARD OVER LINER PANELS (PAINTED). SEE SHEET A4.
S9	PRE-FINISHED DOWNSPOUT & GUTTER.
S10	PROVIDE METAL CLOSURE, SEAL, AND CAULK TO RODENT PROOF BUILDING.
S11	LOCATION OF 2" CONDUIT WITH PULLSTRING (ABOVE OFFICE) FOR SATELLITE LINE. PROVIDE WEATHERTIGHT SEAL AT HORIZONTAL PENETRATION. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF CONDUIT. EXTEND CONDUIT TO OFFICE. COORDINATE PENETRATIONS W/ MANUF. RECOMENDED DETAILS.
S12	1/2" GYPSUM BOARD TO DECK.
S13	ROOF CLOSURE. INSTALL PER MANUFACTURER RECOMENDATIONS.
S14	METAL BUILDING COLUMNS SHALL BE STRAIGHT.
S15	REIN. CONC. SLAB ON VINYL VAPOR BARRIER.
S16	21'X10' ALUMINUM BI-PART DOOR AND STOREFRONT GLAZING SYSTEM, COLOR BRONZE.

SECTION KEYED NOTES

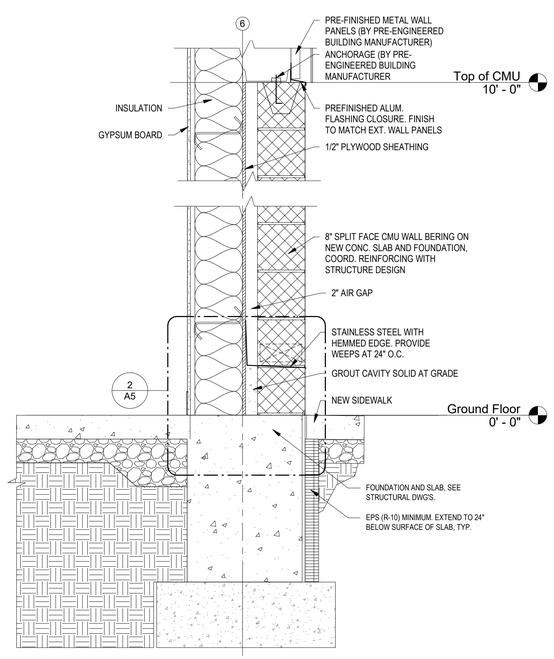
S17	UNDISTURBED EARTH AND COMPACTED SUB GRADE.
S18	SOFFIT PROVIDED BY PRE-ENGINEERED BUILDING MANUF.
S19	PRE-FINISHED METAL WALL PANELS.
S20	GRANULAR FILL.
S21	REINFORCED CONCRETE FOOTING. (REFER TO NOTES ON S2)
S22	PREFINISHED METAL COPING.
S23	STOREFRONT SIGN (BY DOLLAR GENERAL).
S24	FINISH GRADE TO BE MINIMUM OF 8" BELOW FINISHED FLOOR AT ALL NONPAVED AREAS. REFER TO CIVIL DRAWINGS.
S25	LIGHTING - SEE ELECTRICAL DRAWINGS.
S26	WHERE NO SIDEWALK EXISTS, MIN. 9' LONG 4" PERFORATED LANDSCAPE PIPE, STRAPPED TO A 12"X24" CONCRETE SPLASHBLOCK.
S27	INTERIOR WALL - PAINTED - SEE ROOM SCHEDULE FOR MORE INFORMATION.
S29	MC CUE TRIM KIT.
S30	PRE-FINISHED METAL FASCIA PANEL.
S31	METAL COLUMN. WRAP WITH CARPET TO 48" HIGH AT BASE.
S32	CABLE TRAY - SEE A9
S33	20"X30" MINIMUM ACCESS PANEL FOR SIGNAGE JUNCTION BOX; COORDINATE LOCATION WITH ELECTRICAL DRAWINGS AND SIGNAGE VENDOR.
S34	PROVIDE CONTINUOUS METAL FLASHING.
S36	ADA COMPLIANT DRINKING FOUNTAIN. SEE PLUMBING DWGS.



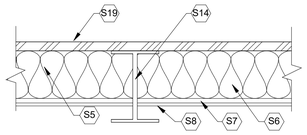
4 A3 Wall Section - Exterior Low Side
1/2" = 1'-0"



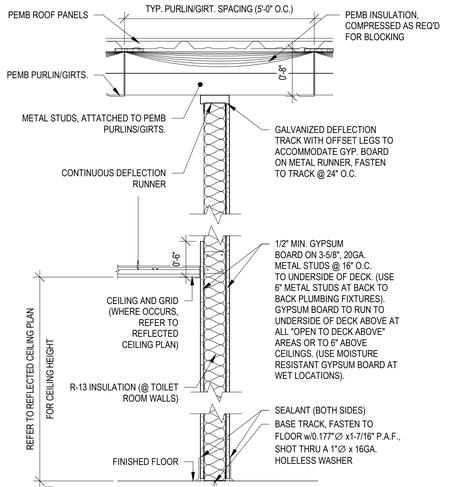
3 A3 Wall Section - Exterior Entry Vestibule
1/2" = 1'-0"



2 A3 Wall Section - Exterior Front
1" = 1'-0"



5 A3 Detail at Column, Typ.
1" = 1'-0"



1 A3 Wall Section - Interior Partition to Structure
1" = 1'-0"

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DOLLAR GENERAL®

STUDIO ARCHITECTURE

DATE:
04/07/2023

DRAWING TITLE:
SECTIONS/DETAILS

SCALE:
AS NOTED

SHEET NO.
A3

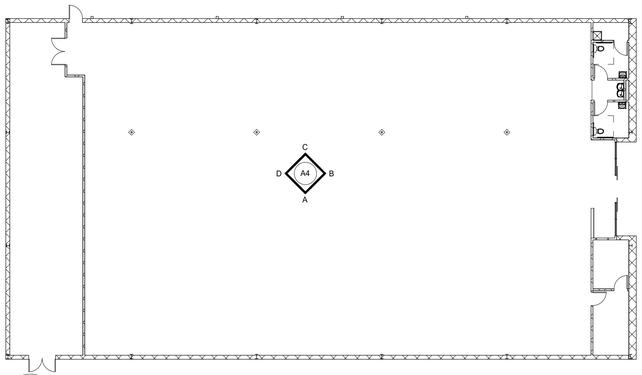
ROOM FINISH SCHEDULE

NO	ROOM NAME	FLOOR		BASE		A WALL		B WALL		C WALL		D WALL		CEILING	CEILING	REMARKS
		MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	MATERIAL	FINISH	
100	BREAK ROOM	CONCRETE FLOOR SEALED	CONCRETE WITH SEALER	4" RUBBER / VINYL BASE	BLACK	GYPSUM BOARD TO 10'-0" A.F.F. WHITE METAL LINER PANELS ABOVE	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYPSUM BOARD TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYPSUM BOARD TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYPSUM BOARD TO 10'-0" A.F.F. WHITE METAL LINER PANELS ABOVE	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	EXPOSED TO STRUCTURE ABOVE	PAINT EXPOSED STRUCTURE SHERWIN WILLIAMS - SW7005 PURE WHITE	
101	OFFICE	CONCRETE FLOOR SEALED	CONCRETE WITH SEALER	4" RUBBER / VINYL BASE	BLACK	GYPSUM BOARD TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYPSUM BOARD TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYP. BD. AT ENTRY TO ROOF DECK, REST TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYPSUM BOARD TO 10'-0" A.F.F. WHITE METAL LINER PANELS ABOVE	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	EXPOSED TO STRUCTURE ABOVE	PAINT EXPOSED STRUCTURE SHERWIN WILLIAMS - SW7005 PURE WHITE	
102	SALES AREA	CONCRETE FLOOR POLISHED (STEPS 1-9)	POLISHED CONCRETE WITH SEALER	4" RUBBER / VINYL BASE	BLACK	← REFER TO INTERIOR ELEVATIONS BELOW →								EXPOSED TO STRUCTURE ABOVE	PAINT EXPOSED STRUCTURE SHERWIN WILLIAMS - SW7005 PURE WHITE	SEE INTERIOR ELEVATIONS
103	RECEIVING AREA	CONCRETE FLOOR SEALED	CONCRETE WITH SEALER	N/A	N/A	METAL LINER PANEL FROM FLOOR TO 8'-0" AFF	WHITE	METAL LINER PANEL FROM FLOOR TO 8'-0" AFF	WHITE	METAL LINER PANEL FROM FLOOR TO 8'-0" AFF	WHITE	GYPSUM BOARD TO ROOF DECK..	TAPED, PAINTED AS REQUIRED BY CODE. MTL. LINER PANEL TO DECK AS ALTERNATE	EXPOSED TO STRUCTURE ABOVE	PAINT EXPOSED STRUCTURE SHERWIN WILLIAMS - SW7005 PURE WHITE	FINISH ALL WALLS TO THE ROOF DECK
104	WOMENS	CONCRETE FLOOR SEALED	SHERWIN WILLIAMS ACRYLIC SILICONE SILK CHOCOLATE HC-117.	4" RUBBER / VINYL BASE	BLACK	GYPSUM BOARD TO ROOF DECK..	8'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD TO ROOF DECK..	8'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD TO 8'-0" A.F.F.	8'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD TO 8'-0" A.F.F.	8'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD CEILING @ 8'-0" A.F.F.	WHITE	
105	MENS	CONCRETE FLOOR SEALED	SHERWIN WILLIAMS ACRYLIC SILICONE SILK CHOCOLATE HC-117.	4" RUBBER / VINYL BASE	BLACK	GYPSUM BOARD TO 8'-0" A.F.F.	8'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD TO ROOF DECK..	8'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD TO 8'-0" A.F.F.	8'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD TO 8'-0" A.F.F.	8'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD CEILING @ 8'-0" A.F.F.	WHITE	
107	SERVICE CLOSET	CONCRETE FLOOR SEALED	SHERWIN WILLIAMS ACRYLIC SILICONE SILK CHOCOLATE HC-117.	4" RUBBER/ VINYL BASE	BLACK	GYPSUM BOARD TO 8'-0" A.F.F.	4'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD TO ROOF DECK..	4'-0" HIGH FIBERGLASS REINFORCED PANEL - "WHITE"	GYPSUM BOARD TO 8'-0" A.F.F.	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYPSUM BOARD TO 8'-0" A.F.F.	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYPSUM BOARD CEILING @ 8'-0" A.F.F.	WHITE	
108	HALLWAY	CONCRETE FLOOR POLISHED (STEPS 1-9)	POLISHED CONCRETE WITH SEALER	4" RUBBER / VINYL BASE	BLACK	GYPSUM BOARD TO 8'-0" A.F.F.	SHERWIN WILLIAMS - SW6991 BLACK MAGIC, PRO-MAR LATEX SEMI-GLOSS TO 48" AFF. SHERWIN WILLIAMS - SW7005 PURE WHITE, PRO-MAR LATEX SEMI-GLOSS ABOVE 48" AFF.	GYPSUM BOARD TO 8'-0" A.F.F.	SHERWIN WILLIAMS - SW7005-PURE WHITE, PRO-MAR LATEX SEMI-GLOSS.	GYPSUM BOARD TO 8'-0" A.F.F.	SHERWIN WILLIAMS - SW6991 BLACK MAGIC, PRO-MAR LATEX SEMI-GLOSS TO 48" AFF. SHERWIN WILLIAMS - SW7005 PURE WHITE, PRO-MAR LATEX SEMI-GLOSS ABOVE 48" AFF.	GYPSUM BOARD TO 8'-0" A.F.F.	SHERWIN WILLIAMS - SW6991 BLACK MAGIC, PRO-MAR LATEX SEMI-GLOSS TO 48" AFF. SHERWIN WILLIAMS - SW7005 PURE WHITE, PRO-MAR LATEX SEMI-GLOSS ABOVE 48" AFF.	GYPSUM BOARD CEILING @ 8'-0" A.F.F.	WHITE	
106	VESTIBULE (IF REQUIRED)	POLISHED CONCRETE (STEPS 1-9)	POLISHED CONCRETE WITH SEALER	4" RUBBER / VINYL BASE	BLACK	GYP. BD. TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW7065 ARGOS, PRO-MAR LATEX SEMI-GLOSS.	GYP. BD. TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW6910 DAISY, PRO-MAR LATEX SEMI-GLOSS.	GYP. BD. TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW7065 ARGOS, PRO-MAR LATEX SEMI-GLOSS.	GYP. BD. TO 10'-0" A.F.F.	SHERWIN WILLIAMS - SW7065 ARGOS, PRO-MAR LATEX SEMI-GLOSS.	EXTERIOR GRADE GYP BD @ 10'-0"	WHITE	

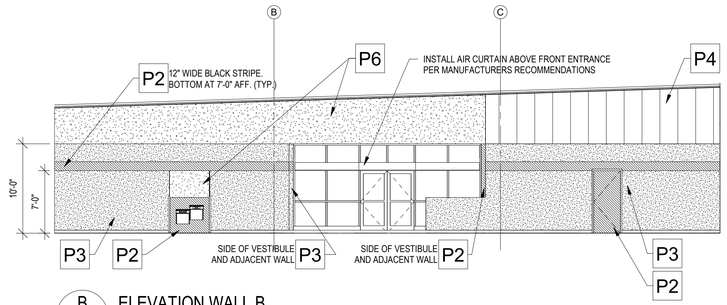
DOOR SCHEDULE

NO.	TYPE	SIZE			DOOR HARDWARE	REMARKS
		W	H	T		
100	A	3' - 0"	7' - 0"	0' - 1 3/4"	(1-1/2 PAIR HINGES), (1) FALCON PASSAGE LEVERSET #W101S-DANE-626 - NO KEY REQ'D., (1) HAGER DOOR CLOSER #5400. (1) IVES WALL STOP, #402-1/2B-26D	SOLID CORE WOOD DOOR OR HOLLOW METAL DOOR. PAINTED.
101	B	3' - 0"	7' - 0"	0' - 1 3/4"	(1-1/2 PAIR HINGES), (1) FALCON STOREROOM LEVERSET #W581PD-DANE-626 - KEY #1, (1) HAGER DOOR CLOSER #5400, (1) IVES WALL STOP #402-1/2B-26D, (1) TACO DOOR VIEWER #TA3310PC.	SOLID WOOD DOOR OR HOLLOW METAL DOOR. PAINTED.
102	E	3' - 0"	7' - 0"	0' - 1 3/4"	(1-1/2 PAIR HINGES), (1) VON DUPRIN GUARD-X EXIT ALARM LOCK #2670-28, (1) HAGER DOOR CLOSER #5400, (1) DOOR SWEEP, WEATHERSTRIPPING. (1) 7015SC8-26D RIM CYLINDER, (1) HAGER 8N PULL.	INSULATED METAL DOOR. PAINTED.
103A	C	6' - 0"	7' - 0"	0' - 1 3/4"	(3 PAIR HINGES), (2) BURNS PULL PLATES #5410-32D-26D-GRIP, (2) BURNS PUSH PLATES #54-US32D,(4) IVES KICK PLATES #8400-S32D-8X34, (2) HAGER DOOR CLOSERS #5400. (2) IVES 4" DOOR HOLDER #452B26D-4. (1) IVES WALL STOP #402-1/2B-26D (PROVIDE PANIC HARDWARE IF DOOR IS FIRE RATED.)(NO DOOR HOLDERS IF FIRE-RATED.)	SOLID CORE WOOD DOOR OR HOLLOW METAL DOOR. PAINTED. PROVIDE FIRE RATED DOORS IF REQUIRED.
103B	D	6' - 0"	7' - 0"	0' - 1 3/4"	(3 PAIR HINGES), (1) VON DUPRIN GUARD-X EXIT ALARM LOCK #2670-28, (1) VON DUPRIN GUARD-X DOUBLE DOOR STRIKE #2609, (1) DETEX DOULBLE DOOR HOLDER #DDH-2250 TOP & BOTTOM, (2) HAGER DOOR CLOSERS #5400, (2) BURNS PULL PLATES #5410-32D-26D-GRIP, (1) 2" DOOR SCOPE #DS/1000MB, (2) 8" DOOR HOLDERS #608Z, (1) NATIONAL GUARD HD THRESHOLD #425 HD-6 FT, (2) DOOR SWEEPS #770SAV-3FT, WEATHER-STRIPPING HAGER #892SAV. (1) 7015SC8-26D RIM CYLINDER	INSULATED METAL DOOR. PAINTED.
104	A	3' - 0"	7' - 0"	0' - 1 3/4"	(1-1/2 PAIR HINGES), (1) FALCON STOREROOM LEVERSET #W581PD-DANE-626 - KEY #2, (1) HAGER DOOR CLOSER #5400, (1) IVES WALL STOP #402-1/2B-26D.	SOLID CORE WOOD DOOR OR HOLLOW METAL DOOR. PAINTED.
105	A	3' - 0"	7' - 0"	0' - 1 3/4"	(1-1/2 PAIR HINGES), (1) FALCON STOREROOM LEVERSET #W581PD-DANE-626 - KEY #2, (1) HAGER DOOR CLOSER #5400, (1) IVES WALL STOP #402-1/2B-26D.	SOLID CORE WOOD DOOR OR HOLLOW METAL DOOR. PAINTED.
106	F	6' - 0"	7' - 0"	0' - 1 3/4"	BY DOOR MANUFACTURER TO BE RE-KEYED BY DOLLAR GENERAL AREA MANAGER WITH (1) ILCO RIM CYLINDER #7015SC8-26D.	21'-0" BI-PART WITH TRANSOM AND GLASS. BRONZE FINISH
107	A	3' - 0"	7' - 0"	0' - 1 3/4"	(1-1/2 PAIR HINGES), (1) FALCON STOREROOM LEVERSET #W581PD-DANE-626 - KEY #2, (1) HAGER DOOR CLOSER #5400, (1) IVES 4" DOOR HOLDER #452B26D-4, (1) IVES WALL STOP #402-1/2B-26D.	SOLID CORE WOOD DOOR OR HOLLOW METAL DOOR. PAINTED.

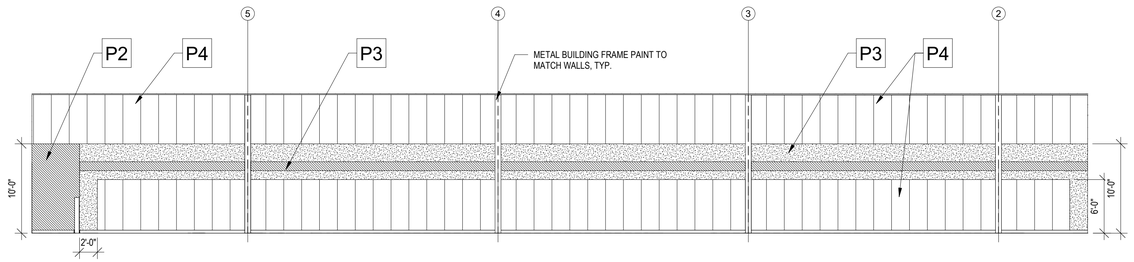
NOTE:
INTERIOR HOLLOW METAL FRAMES AND INTERIOR DOORS TO BE PAINTED SW 6991 BLACK MAGIC (SEMI-GLOSS).
EXTERIOR HOLLOW METAL DOORS AND FRAMES TO BE PAINTED SW 7041 VAN DYKE BROWN. THE INTERIOR SIDE TO BE PAINTED SW 6991 BLACK MAGIC.



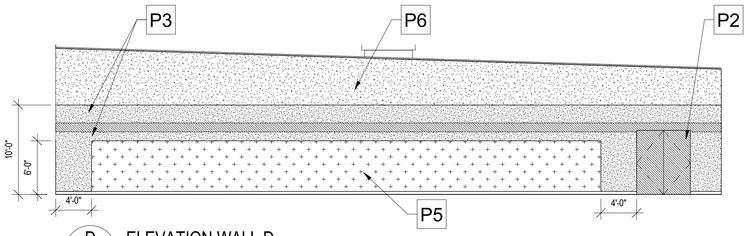
2 A4 FINISH PLAN
1/16" = 1'-0"



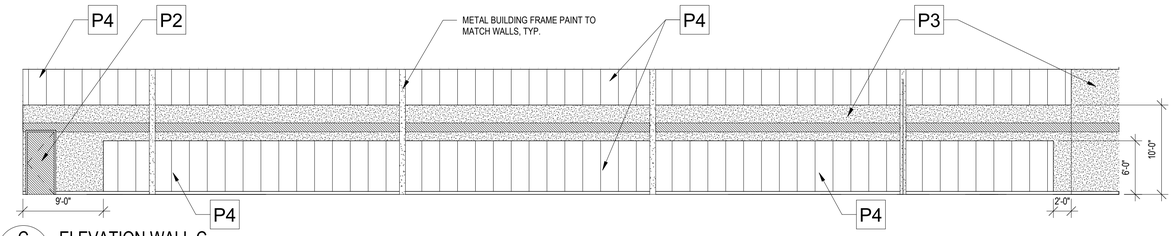
B A4 ELEVATION WALL B
1/8" = 1'-0"



A A4 ELEVATION WALL A
1/8" = 1'-0"



D A4 ELEVATION WALL D
1/8" = 1'-0"



C A4 ELEVATION WALL C
1/8" = 1'-0"

WALL PAINT LEGEND

P1	SW6910 "DAISY"
P2	SW6991 "BLACK MAGIC"
P3	SW7065 "ARGOS"
P4	EXPOSED PREFINISHED METAL LINER PANELS
P5	DENOTES GYPSUM BOARD TAPED AND MUDDED ONLY
P6	SW7005 "PURE WHITE"

ALL EXPOSED STRUCTURE AT ROOF TO BE PAINTED P6

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DOLLAR GENERAL®

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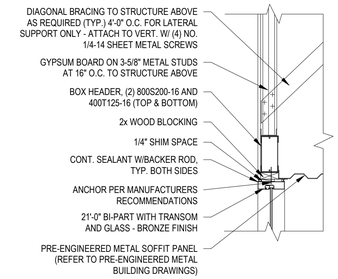
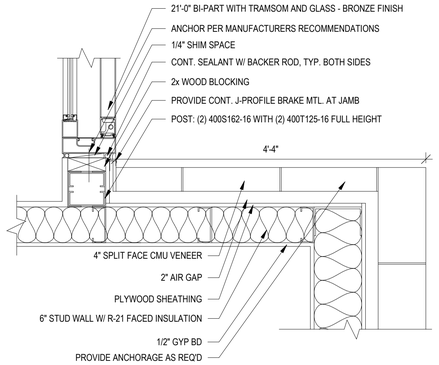
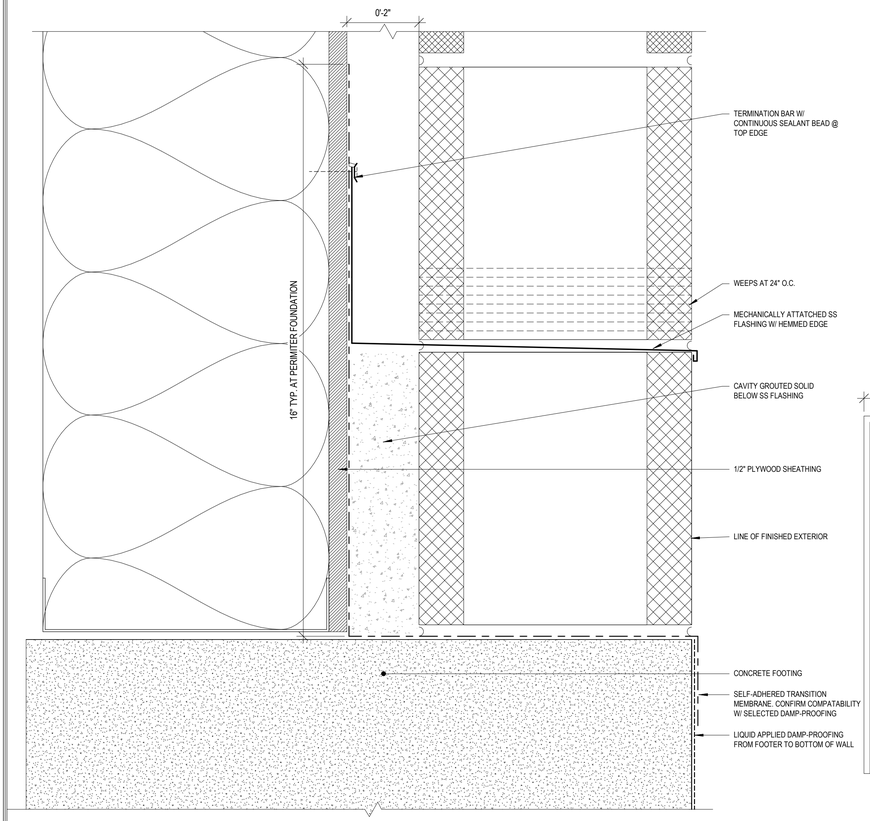
DATE: 04/07/2023
DRAWING TITLE: SCHEDULES
SCALE: AS NOTED
SHEET NO: A4



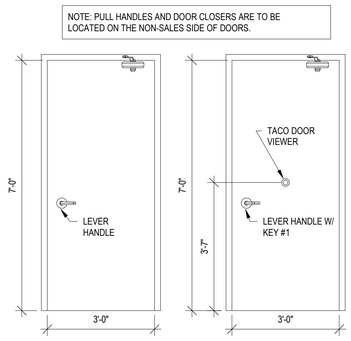
4 / A5 HEAD DETAIL
1" = 1'-0"



3 / A5 JAMB DETAIL
1" = 1'-0"

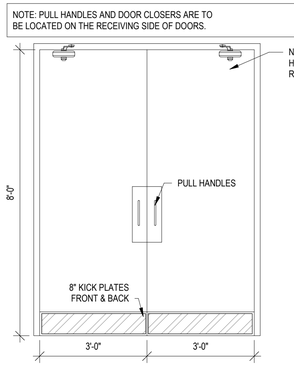


2 / A5 Base Section Detail - Overlap Diagram
6" = 1'-0"

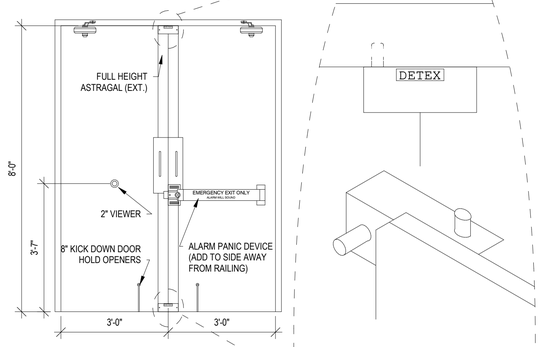


A
INTERIOR DOORS TYP.

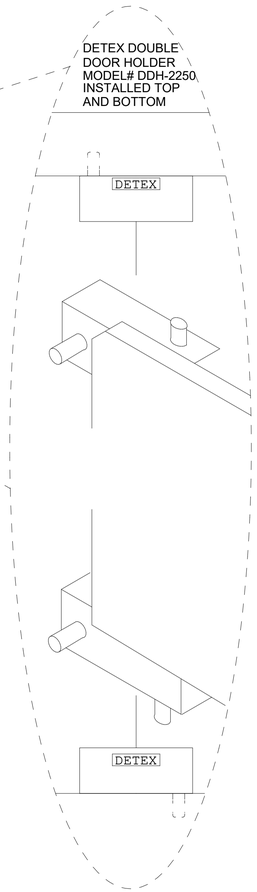
B
OFFICE DOOR

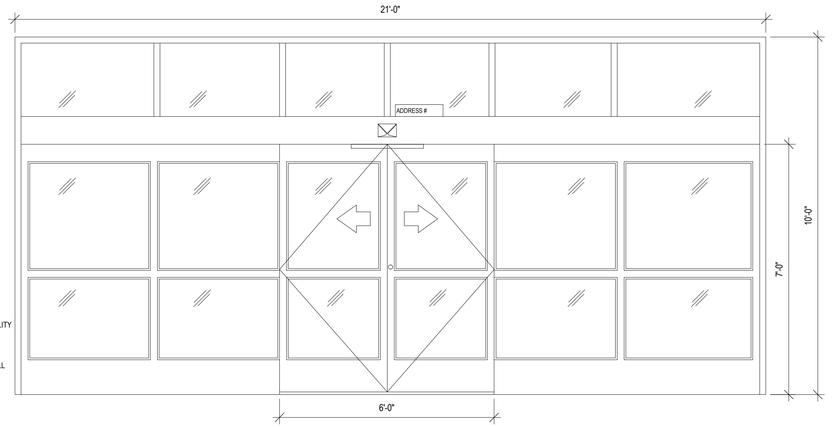


C
INTERIOR RECEIVING DOORS

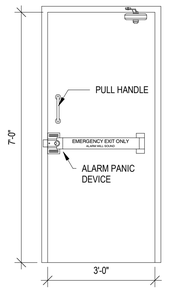


D
EXTERIOR RECEIVING DOOR





F
STOREFRONT ENTRANCE



E
EMERG. EXIT DOOR

1 / A5 DOOR ELEVATIONS
1/2" = 1'-0"

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06/01/2023

DOLLAR GENERAL®

STUDIO ARCHITECTURE

DATE:
04/07/2023

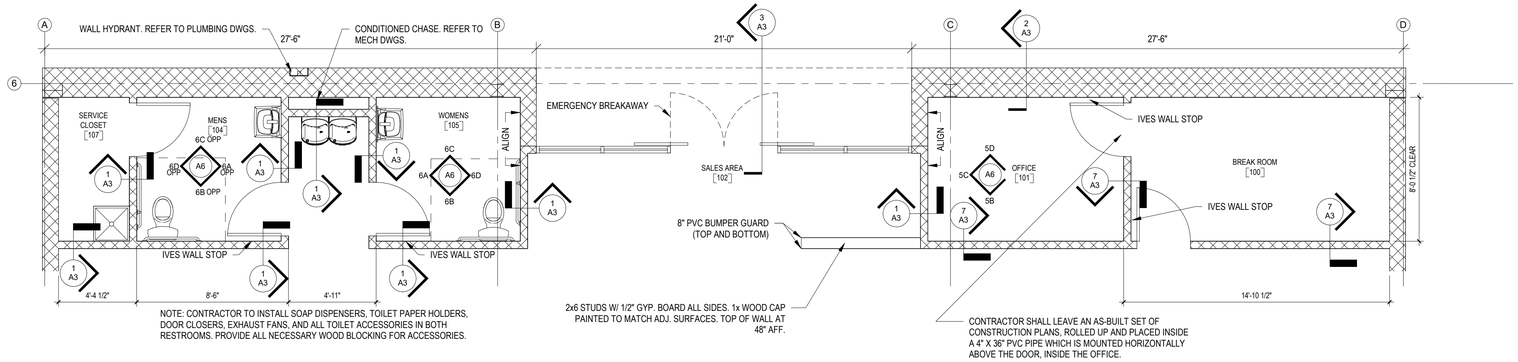
DRAWING TITLE:
DOOR DETAILS

SCALE:

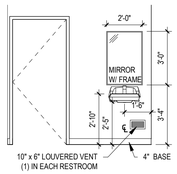
SHEET NO.
A5

888-774-3400 EXT. 925	
TOILET ACCESSORIES	
B2740	BOBRICK DOUBLE TOILET TISSUE DISPENSER
B253	BOBRICK PAPER TOWEL DISPENSER
A-24x36	GAMCO 24" x 36" ANGLE FRAME MIRROR
150Sx36	GAMCO 1 1/2" X 36" GRAB BAR
150Sx42	GAMCO 1 1/2" X 42" GRAB BAR
150Sx18	GAMCO 1 1/2" X 18" GRAB BAR
MS-1	GAMCO MOP HOLDER

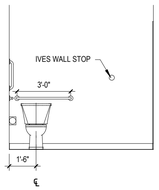
CONTRACTOR TO INSTALL SOAP DISPENSERS, TOILET PAPER HOLDERS, DOOR CLOSERS, DOOR HOLDERS, EXHAUST FANS, AND ALL TOILET ACCESSORIES IN BOTH RESTROOMS. PROVIDE ALL NECESSARY WOOD BLOCKING FOR ACCESSORIES.



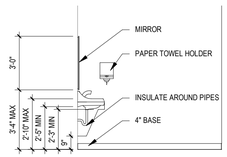
6 A6 Restroom/Office Plan
1/4" = 1'-0"



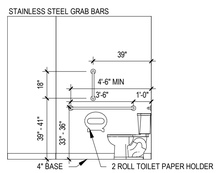
6A A6 Restroom Elevation A
1/4" = 1'-0"



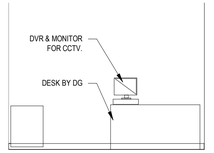
6B A6 Restroom Elevation B
1/4" = 1'-0"



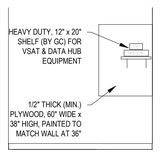
6C A6 Restroom Elevation C
1/4" = 1'-0"



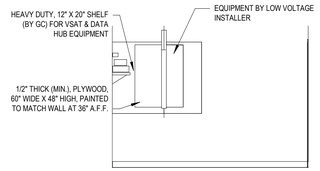
6D A6 Restroom Elevation D
1/4" = 1'-0"



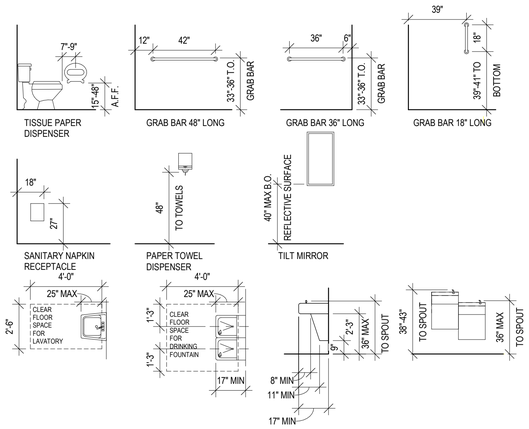
5B A6 Office Elevation B
1/4" = 1'-0"



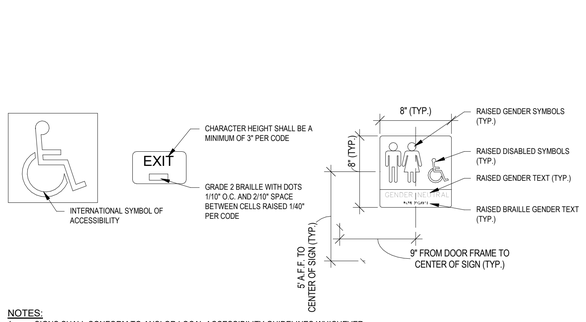
5C A6 Office Elevation C
1/4" = 1'-0"



5D A6 Office Elevation D
1/4" = 1'-0"

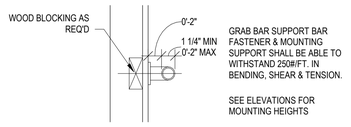


4 A6 ADA CLEARANCES
1/4" = 1'-0"

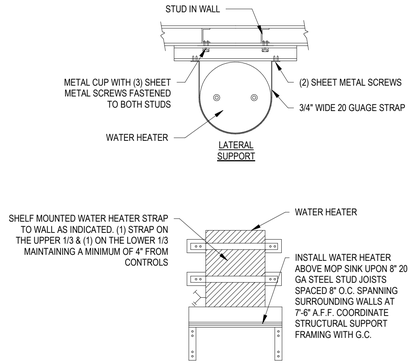


NOTES:
1. SIGNS SHALL CONFORM TO ANSI OR LOCAL ACCESSIBILITY GUIDELINES WHICHEVER IS MORE STRINGENT.
2. ALL BUILDINGS AND ENTRANCES THAT ARE ACCESSIBLE AND USABLE BY PERSONS WITH DISABILITIES SHALL BE IDENTIFIED WITH A MINIMUM OF ONE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
3. G.C. TO PROVIDE TACTILE "EXIT" SIGNS AT ALL GRADE LEVEL EXIT DOORS PER CODE.
4. SIGNS TO BE INSTALLED ON THE LATCH SIDE OF THE DOOR, OR IF NO SPACE ON THE NEAREST WALL PREFERABLY ON THE RIGHT. SIGNAGE SHALL HAVE NON GLARE FINISH W/ A CONTRASTING BACKGROUND. SEE A1 FOR LOCATION OF SIGNAGE.

3 A6 ACCESSIBLE SIGNAGE
1 1/2" = 1'-0"



2 A6 GRAB BAR DETAIL
1 1/2" = 1'-0"



1 A6 WATER HEATER SHELF DETAIL
1/8" = 1'-0"

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STATE OF NEW YORK
06/07/2023

DOLLAR GENERAL®

STUDIO ARCHITECTURE

DATE: 04/07/2023
DRAWING TITLE: RESTROOM DETAILS
SCALE: AS NOTED
SHEET NO: A6

Building Signs

Sign Size	Sign Weight	# Of Circuits	Amps	Voltage
3'-9" x 26' box	441 lbs.	(1) 15 A	5	115
4'-6" x 33'-3" box	750 lbs.	(1) 15 A	8.4	115

Building Letters

Sign Size	Sign Weight	# Of Circuits	Amps	Voltage
18"	215 lbs.	(2) 15 A	19.6	115
24"	288 lbs.	(1) 15 A & (1) 20 A	23.45	115
30"	387 lbs.	(2) 20 A	28	115
36"	649 lbs.	(2) 15 A & (1) 20 A	32.9	115

Pylon Signs

Sign Size	Sign Weight	# Of Circuits	Amps	Voltage
4' x 8'	188 lbs.	(1) 15 A	1.7	115
5' x 10'	375 lbs.	(1) 15 A	3.4	115
6' x 16'	738 lbs.	(1) 15 A	5	115

SIGN SPECIFICATIONS

1. BUILDING SIGNS: PROVIDE CONDUIT AND WIRE FROM ELECTRICAL PANEL TO THE SIGN CANOPY. THE CONDUIT IS TO BE 1" AND HAVE ONE SET OF 10/2 WIRE WITH GROUND. BUILDING CANOPY MUST BE SUFFICIENTLY BUILT TO SUPPORT THE DOLLAR GENERAL SIGN OF UP TO 1400 LBS. NOTE: IF THE LEASE SPECIFIES A 5'-0" X 40'-0" BUILDING SIGN OR 24" LETTER SET (OR LARGER), 2 qty. - 10/2 WIRE WITH GROUND.

2. PYLON SIGNS: PROVIDE CONDUIT FROM ELECTRICAL PANEL TO LOCATION OF THE PYLON SIGN BASE. BURY CONDUIT UNDER PARKING AREA. THE CONDUIT IS TO BE 1" AND HAVE ONE SET OF 10/2 WIRE WITH GROUND.

3. FINAL ELECTRICAL CONNECTIONS FOR SIGN SHALL BE THE SIGN VENDORS RESPONSIBILITY SINCE THE 'J' BOX AND WIRES ARE IN PLACE.

4. SEE CHART ABOVE FOR SIGN SPECIFICATIONS.

5. SEE SHEET A8 FOR SIGN BRACING DETAILS.

6. PYLON SIGN CABINETS TO CLEAR 15' FROM GRADE AND EDGE SHALL BE LOCATED NO CLOSER THAN 10' TO ANY OVERHEAD UTILITY LINES.

THIS SIGN IS TO BE PROVIDED AND INSTALLED BY THE DEVELOPER OR CONTRACTOR AT THE BEGINNING OF CONSTRUCTION PROJECT.

PROTOTYPICAL MAIN BUILDING
SIGN FOR 'C' & 'D' SCHEMES

THIS IS THE PRIMARY PYLON SIGN FOR ALL LOCATIONS.

1 / A7 SIGN ELEVATIONS
1/2" = 1'-0"

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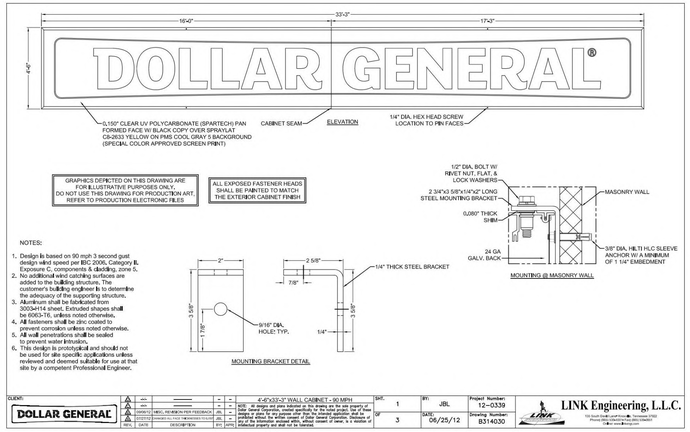
STUDIO ARCHITECTURE

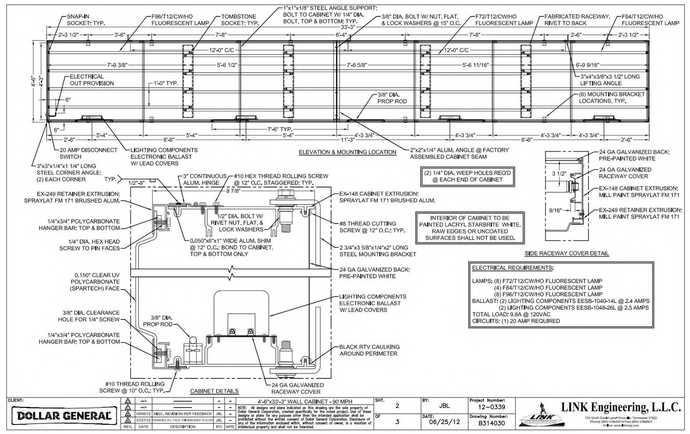
DATE: 04/07/2023

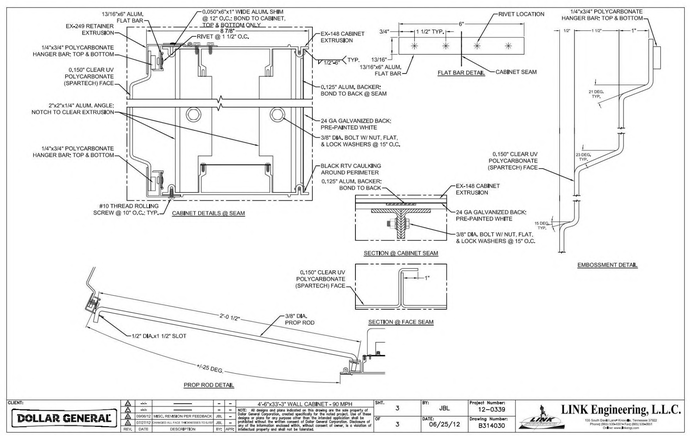
DRAWING TITLE: SIGN DETAILS

SCALE: 1/2" = 1'-0"

SHEET NO.: A7







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DOLLAR GENERAL®

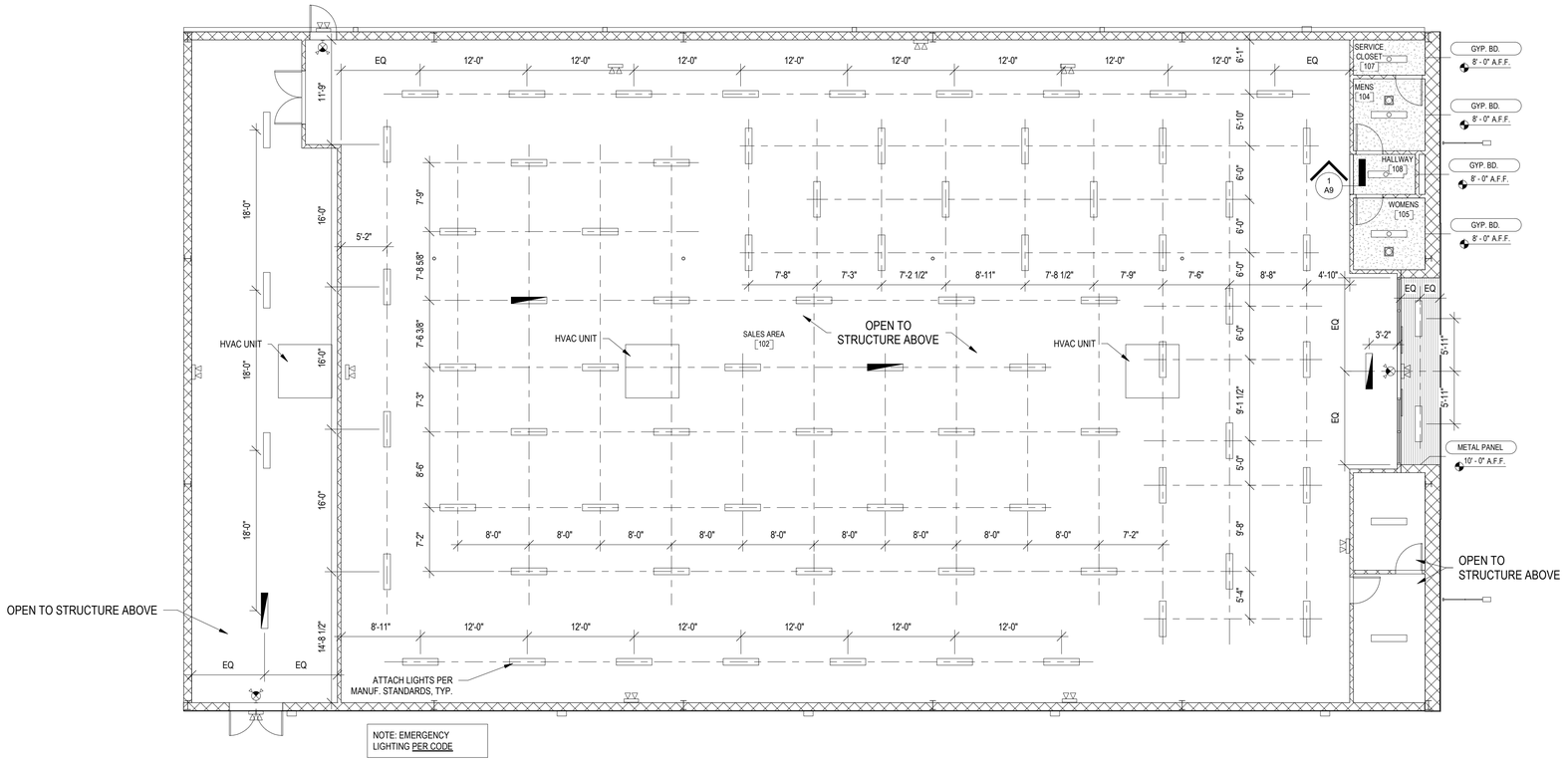
STUDIO ARCHITECTURE

DATE:
04/07/2023

DRAWING TITLE
BRACING DETAILS

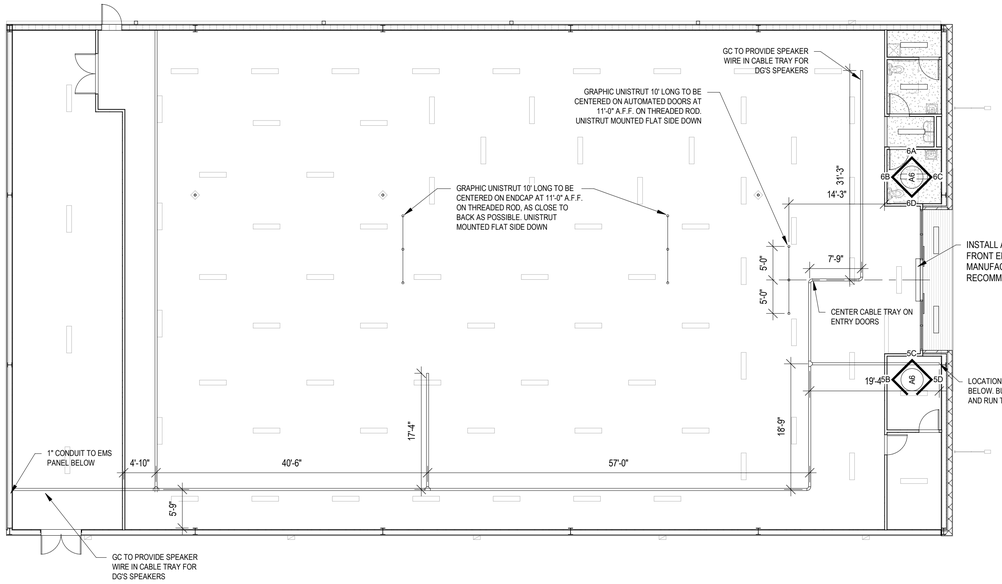
SCALE:
NOT TO SCALE

SHEET NO.
A8



3 A9 REFLECTED CEILING PLAN

1/8" = 1'-0"



2 A9 CABLE TRAY PLAN

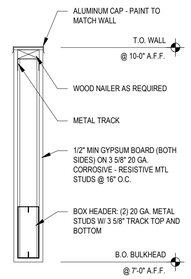
3/32" = 1'-0"

REFLECTED CEILING PLAN LEGEND

- EXTERIOR DOWNLIGHT
- EXTERIOR WALLPACK
- LIGHT FIXTURE
- LIGHT FIXTURE
- EXHAUST FAN
- EXIT LIGHTS
- EMERGENCY LIGHTS
- 24" X 24" ACOUSTIC CEILING TILE SYSTEM (ACT-1)

REFLECTED CEILING PLAN NOTES

1. ALL LIGHTS TO BE MOUNTED SUCH THAT THE TOP OF THE FIXTURES ARE AT 11'-0" A.F.F. UNLESS OTHERWISE NOTED. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. CABLE TRAY TO BE MOUNTED SUCH THAT THE BOTTOM OF THE TRAY IS AT 11'-6" A.F.F.
3. CABLE TRAY SYSTEM TO BE INSTALLED USING FULL LENGTHS WITH MINIMAL CUTTING OF SECTIONS. AREAS WHERE CUTTING MAY BE REQUIRED ARE AS NOTED ON THE PLAN.
4. THREADED RODS TO 9'-0"A.F.F. UNISTRUT TO BE MOUNTED FLAT SIDE DOWN.



1 A9 BULKHEAD DETAIL

1" = 1'-0"

The Broadway Group
Commercial Real Estate Development

REVISIONS:
1 06/01/2023 Issued for Permit

STORE 25355
7174 ALLEGHANY RD
BASOM - NEW YORK

REGISTERED ARCHITECT
MEGAN ELIZABETH KAUFMANN
043532
STATE OF NEW YORK
06/01/2023

DOLLAR GENERAL®

STUDIO ARCHITECTURE

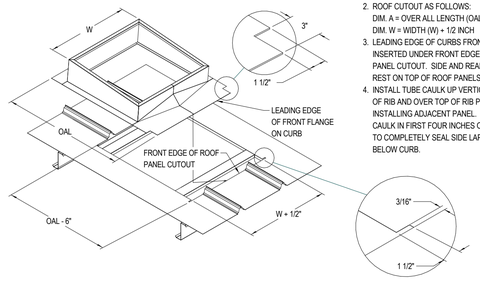
DATE:
04/07/2023

DRAWING TITLE
CEILING PLAN

SCALE:
AS NOTED

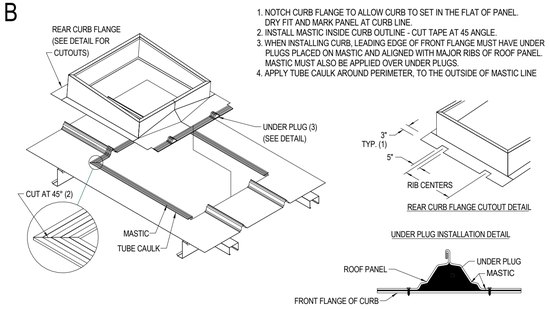
SHEET NO.
A9

A



1. ATTACH ROOF PANELS
2. ROOF CUTOUT AS FOLLOWS:
   DIM. A = OVER ALL LENGTH (OAL) - 6 INCHES
   DIM. W = WIDTH (W) + 1/2 INCH
3. LEADING EDGE OF CURBS FRONT FLANGE IS INSERTED UNDER FRONT EDGE OF ROOF PANEL CUTOUT. SIDE AND REAR FLANGES REST ON TOP OF ROOF PANELS
4. INSTALL TUBE CAULK UP VERTICAL PORTION OF RIB AND OVER TOP OF RIB PRIOR TO INSTALLING ADJACENT PANEL. INSTALL TUBE CAULK IN FIRST FOUR INCHES OF FEMALE RIB TO COMPLETELY SEAL SIDE LAP ABOVE AND BELOW CURB.

B



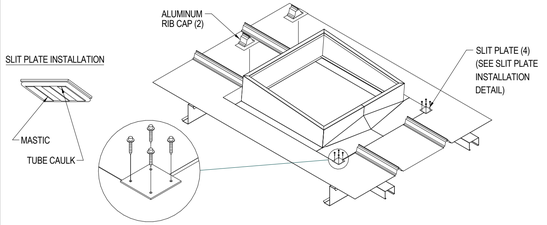
1. NOTCH CURB FLANGE TO ALLOW CURB TO SET IN THE FLAT OF PANEL. DRY FIT AND MARK PANEL AT CURB LINE.
2. INSTALL MASTIC INSIDE CURB OUTLINE - CUT TAPE AT 45 ANGLE.
3. WHEN INSTALLING CURB, LEADING EDGE OF FRONT FLANGE MUST HAVE UNDER PLUGS PLACED ON MASTIC AND ALIGNED WITH MAJOR RIBS OF ROOF PANEL. MASTIC MUST ALSO BE APPLIED OVER UNDER PLUGS.
4. APPLY TUBE CAULK AROUND PERIMETER, TO THE OUTSIDE OF MASTIC LINE

REAR CURB FLANGE CUTOUT DETAIL

UNDER PLUG INSTALLATION DETAIL

C

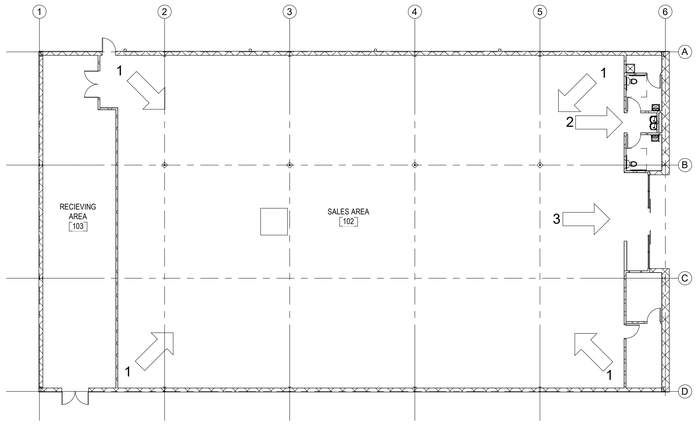
1. ATTACH CURB THROUGH ROOF PANEL INTO SUPPORTS WITH SCREWS SPACED AT 3" O.C.
2. APPLY MASTIC & TUBE CAULK TO UNDER SIDE OF RIB CAPS, WITH TUBE CAULK EXPOSED TO THE WEATHER SIDE. ATTACH RIB CAPS WITH FASTENERS 3" O.C.
3. GENEROUSLY APPLY TUBE CAULK AROUND PANEL SEAM WHERE IT ENTERS RIB CAP. FORCING CAULK BACK INTO TOP OF RIB CAP.
4. APPLY MASTIC & TUBE CAULK TO BOTTOM OF SLIT PLATES PRIOR TO INSTALLATION (SEE DETAIL).



CURB INSTALLATION INSTRUCTIONS

TRAPEZOIDAL STANDING SEAM PANEL - UNDER / OVER
FOLLOW MANUFACTURER'S SPECIFICATIONS

REQUIRED NATIONAL ACCOUNT ROOF CURB DG VENDORS:			
ROOF CURB SYSTEMS	GREG SMYTH	800-683-5848	GSMYTH@ROOFCURB.COM
CURBS PLUS INC.	ALAN THRAILKILL	888-639-2872	ALAN.THRAILKILL@CURBS-PLUS.COM
KCC INTERNATIONAL INC.	GREG CONRAD	800-382-2872	GCONRAD@KCCCURBS.COM



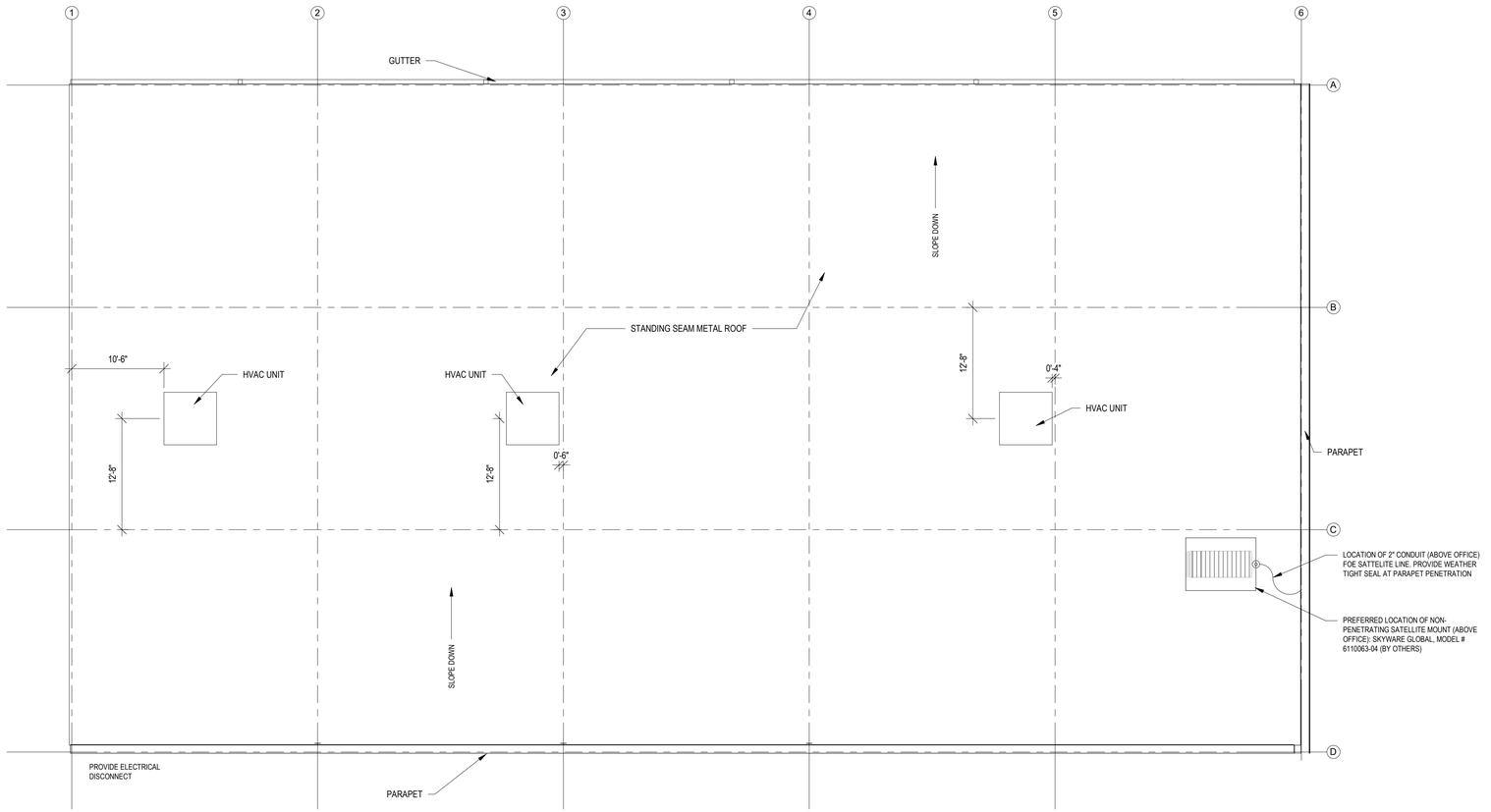
REQUIRED PHOTOS:

THE FOLLOWING LAYOUT SHOWS THE REQUIRED PHOTOS TO BE TAKEN AT COMPLETION.
(MAKE SURE THE OVERHEAD LIGHTS ARE ON FOR YOUR PHOTOS.)

1. FROM EACH CORNER OF THE SALES FLOOR, FACING THE OPPOSITE CORNER.
2. HALL (INSIDE ENTRANCE STORES, ONE PICTURE FROM EACH END OF THE HALL).
3. STANDING 10' FROM THE ENTRANCE FACING THE ENTRANCE.

2 / A10 PHOTO KEY PLAN

1/16" = 1'-0"



1 / A10 ROOF PLAN

1/8" = 1'-0"

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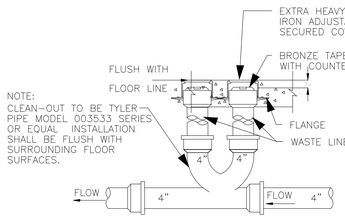

GENERAL PLUMBING NOTES:

ADMINISTRATIVE:

1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS:
   PC – PLUMBING CONTRACTOR, EC – ELECTRICAL CONTRACTOR,
   MC – MECHANICAL CONTRACTOR, GC – GENERAL CONTRACTOR,
   FASC – FIRE ALARM SYSTEM CONTRACTOR.
2. "PROVIDE" MEANS TO FURNISH AND INSTALL. THE PLUMBING CONTRACTOR SHALL ALSO INSTALL MATERIALS FURNISHED BY OTHERS AND THE GENERAL CONTRACTOR.
3. THE PC SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATIONAL SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
4. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED AT AN APPROVED LOCATION. PC SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE PC UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.
5. ALL MATERIALS USED SHALL BE NEW AND FREE OF DEFECTS. ANY MATERIALS FOUND TO BE DEFECTIVE SHALL BE REPLACED AT NO EXPENSE TO THE OWNER. ALL MATERIALS AND EQUIPMENT SHALL BEAR APPROVAL FROM UL OR AN APPROVED THIRD PARTY AGENCY. WHERE A MANUFACTURER AND MODEL NUMBER IS GIVEN, IT IS TO ESTABLISH A STANDARD OF QUALITY AND NOT TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. PRODUCTS DETERMINED TO BE EQUAL BY THE ENGINEER WILL BE ACCEPTED.
6. THE PLUMBING SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE 2020 NEW YORK PLUMBING CODE AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ENGINEER OR IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE REQUIREMENTS.
7. THE PC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
8. DO NOT SCALE THESE DRAWINGS–REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
9. THESE PLANS ARE DIAGRAMMATIC. THE PC SHALL ADJUST THE LOCATIONS OF EQUIPMENT, FIXTURES, PIPING, ETC, TO ACCOMMODATE PLANNED AND ENCOUNTERED INTERFERENCES. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE PC SHALL MAKE ALLOWANCES FOR SUCH DEVIATIONS AND CONTINGENCIES IN BID TO IMPLEMENT THEM WITHOUT ADDITIONAL COST TO THE OWNER. THE PC SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. TO AVOID POTENTIAL CONFLICTS, COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION. ALL UNDERGROUND UTILITIES SHALL BE LOCATED PRIOR TO ANY DIGGING.
10. TRENCHING, COMPACTION, AND BACKFILL SHALL BE BY PC AND SHALL BE IN ACCORDANCE WITH SECTION 306 OF THE NC PLUMBING CODE. UNDERGROUND LINES SHALL BE LOCATED SUCH THAT THEY DO NOT ENDANGER FOOTINGS OR FOUNDATION WALLS.
11. THE PC SHALL PROVIDE FIRESTOPPING AT ALL PENETRATIONS OF RATED FLOOR/CEILING ASSEMBLIES AND RATED WALL ASSEMBLIES TO PRESERVE OR RESTORE THE FIRE RESISTANCE RATING. SEAL ALL PENETRATIONS USING A UL LISTED SYSTEM FOUND IN THE UL DIRECTORY SPECIFIC TO THE UL LISTING OF THE ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR UL RATED ASSEMBLIES SPECIFIC TO THE PROJECT.
12. SYSTEM TESTING SHALL BE PERFORMED BY PLUMBING CONTRACTOR IN ACCORDANCE WITH 2020 NEW YORK PLUMBING CODE, SECTIONS 312.2, 312.3, AND 312.5.
13. PC SHALL DISINFECT THE ENTIRE DOMESTIC WATER PIPING SYSTEM IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION'S SPECIFICATIONS AND LOCAL HEALTH DEPARTMENT REGULATIONS.
14. AT THE COMPLETION OF WORK AND PRIOR TO ACCEPTANCE BY OWNER, THE PC SHALL CLEAN ALL EXPOSED FIXTURES, MATERIALS, AND EQUIPMENT UNDER THIS CONTRACT.
15. PC SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE ALL APPLICABLE CONSTRUCTION WASTE IS RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT.

MATERIALS:

1. ALL OVERHEAD DOMESTIC WATER PIPING SHALL BE TYPE L COPPER WITH 95/5 LEAD FREE SOLDER, AND ALL BELOW GRADE WATER PIPING SHALL BE TYPE K COPPER WITH NO JOINTS. ALL PIPING SHALL HAVE MANUFACTURER'S NAME AND THE APPLICABLE STANDARD TO WHICH IT WAS MANUFACTURED CLEARLY MARKED ON EACH LENGTH. PIPING SHALL COMPLY WITH ASTM B-88. USE BRAZED JOINTS ON ALL COPPER PIPING 1-1/2 INCH AND LARGER. ALL PIPE AND PIPE FITTINGS, INCLUDING VALVES AND FAUCETS, USED IN THE WATER DISTRIBUTION SYSTEM SHALL HAVE A MAXIMUM LEAD CONTENT OF .25-PERCENT AND SHALL CONFORM TO NSF 61. HOT WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 100 PSI AT 180°F. COLD WATER DISTRIBUTION PIPE AND TUBING SHALL HAVE A MINIMUM PRESSURE RATING OF 160 PSI AT 73.4°F. DO NOT INSTALL PEX OR CPVC PIPING IN RETURN AIR PLENUMS.
2. BALL VALVES SHALL HAVE BRASS BODY, FULL PORT, CHROME PLATED BALL, WITH TEFLON SEATS, 150 PSI WSP, AND COMPLY WITH MSS SP-110. GATE VALVES SHALL HAVE BRONZE BODY, CLASS 150, AND COMPLY WITH MSS SP-80, TYPE 2 STANDARD. VALVE BODY SHALL BE ASTM B 62, BRONZE WITH INTEGRAL SEAT AND UNION RING BONNET. ENDS SHALL BE THREADED OR SOLDER WITH COPPER-SILICON BRONZE STEM AND SOLID-WEDGE BRONZE DISC. INSTALL VALVES IN LOCATIONS THAT PERMIT EASY ACCESS WITHOUT DAMAGE TO BUILDING OR FINISHED MATERIALS; PROVIDE ACCESS DOORS IF REQUIRED. VALVES SHALL BE BY NIBCO, WATTS, OR STOCKHAM.
3. COLD WATER LINES SHALL BE INSULATED WITH 1/2 INCH THICK FIBROUS GLASS INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. HOT WATER LINES UP TO 2 INCHES DIAMETER SHALL HAVE 1 INCH THICK INSULATION CONFORMING TO THE SAME STANDARD. PIPING LARGER THAN 2 INCHES SHALL RECEIVE 1-1/2 INCH THICK INSULATION. CLOSED CELL RUBBER INSULATION MEETING THE SMOKE AND FLAME RATINGS ABOVE MAY BE SUBSTITUTED FOR FIBROUS GLASS TYPE IF SO DESIRED. INSULATION INSTALLED ON PIPING OPERATING BELOW AMBIENT TEMPERATURES MUST HAVE A CONTINUOUS VAPOR RETARDER. ALL JOINTS, SEAMS AND FITTINGS MUST BE SEALED. ON SYSTEMS OPERATING ABOVE AMBIENT, THE BUTT JOINTS SHOULD NOT BE SEALED. ON COLD SURFACES WHERE A VAPOR SEAL MUST BE MAINTAINED, INSULATION SHALL BE APPLIED WITH A CONTINUOUS, UNBROKEN MOISTURE AND VAPOR RETARDER. ALL HANGERS, SUPPORTS, ANCHORS, OR OTHER PROJECTIONS SECURED TO COLD SURFACES SHALL BE INSULATED AND VAPOR SEALED TO PREVENT CONDENSATION. ALL PIPE INSULATION SHALL BE CONTINUOUS THROUGH WALLS, CEILING OR FLOOR OPENINGS, OR SLEEVES EXCEPT WHERE FIRESTOP OR FIRESAFING MATERIALS ARE REQUIRED. INSULATION SHALL HAVE A FACTORY APPLIED ALL-SERVICE JACKET WITH SELF-SEALING LAP. WHITE-KRAFT PAPER BONDED TO ALUMINUM FOIL AND REINFORCED WITH GLASS FIBERS; CONFORMING TO ASTM C 1136 TYPE 1; VAPOR RETARDER; WITH A SELF-SEALING ADHESIVE. VERIFY THAT PIPING HAS BEEN TESTED, SURFACES ARE CLEAN AND DRY, AND ALL FOREIGN MATERIALS ARE REMOVED BEFORE APPLYING INSULATION MATERIALS. INSULATION SHALL BE BY KNAUF, ARMACELL, JOHNS-MANVILLE, OR OWENS-CORNING.
4. ALL INSULATION CONTAINING FIBROUS MATERIALS EXPOSED TO AIRFLOW SHALL BE RATED FOR THAT EXPOSURE OR SHALL BE ENCAPSULATED. INSULATING PROPERTIES FOR ALL MATERIALS SHALL MEET OR EXCEED INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578 91. ALL INSULATION SHALL BE LOW-EMITTING WITH NOT GREATER THAN 0.05 PPM FORMALDEHYDE EMISSIONS. THE MAXIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION IN WHICH THE BUILDING IS LOCATED.
5. FAUCETS AND FIXTURE FITTINGS SHALL CONFORM TO ASME A112.18.1. FAUCETS AND FIXTURE FITTINGS THAT SUPPLY DRINKING WATER FOR HUMAN CONSUMPTION SHALL CONFORM TO THE REQUIREMENTS OF NSF 61, SECTION 9. FIXTURE FITTINGS, FAUCETS, AND DIVERTERS SHALL BE INSTALLED AND ADJUSTED SO THAT THE FLOW OF HOT WATER FROM THE FITTINGS CORRESPONDS TO THE LEFT HAND SIDE OF THE FIXTURE FITTING.
6. BACKFLOW PREVENTION SHALL BE IN ACCORDANCE WITH SECTION 608.14 OF THE 2020 NEW YORK PLUMBING CODE AND THE LOCAL AUTHORITY HAVING JURISDICTION. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTERS SHALL CONFORM TO ASSE 1013 OR AWWA C511. THE RELIEF OPENING SHALL DISCHARGE BY AIR GAP. AIR GAPS SHALL COMPLY WITH ASME A112.1.1 AND AIR GAP FITTINGS WITH ASME A112.1.3. DOUBLE CHECK VALVE ASSEMBLIES SHALL CONFORM TO ASSE 1015 OR AWWA C510. ACCESS TO BACKFLOW PREVENTERS SHALL BE PROVIDED AS SPECIFIED BY THE INSTALLATION INSTRUCTIONS OF THE APPROVED MANUFACTURER.
7. FOR BELOW GRADE SANITARY WASTE PIPING, PC SHALL USE SERVICE WEIGHT CAST IRON PIPE WITH COMPRESSION JOINTS (ASTM A 74). USE MINIMUM 2 INCH SIZE UNDERGROUND. SOLID WALL SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET TYPE PIPE FITTINGS (ASTM D 3311) MAY ALSO BE USED. DO NOT USE PVC PIPE FOR APPLICATIONS WHERE THE WASTE WATER TEMPERATURE EQUALS OR EXCEEDS 140°F OR IF THE BUILDING HEIGHT EXCEEDS 75 FEET.
8. FOR ABOVE GRADE SANITARY WASTE AND VENT PIPING, USE SERVICE WEIGHT CAST IRON NO-HUB TYPE WITH COUPLINGS (CISPI 301). SOLID WALL SCHEDULE 40 PVC (ASTM D 2665) WITH SCHEDULE 40 SOCKET TYPE FITTINGS (ASTM D 3311) MAY BE USED IF PERMITTED BY LOCAL CODE, EXCEPT IN BUILDINGS EXCEEDING 75 FEET IN HEIGHT. DO NOT INSTALL PVC IN RETURN AIR PLENUMS. ALL VENT AND BRANCH VENT PIPES SHALL BE SO GRADED AND CONNECTED AS TO DRAIN BACK TO THE DRAINAGE PIPE BY GRAVITY. BRANCH VENTS EXCEEDING 40 FEET IN DEVELOPED LENGTH SHALL BE INCREASED BY ONE NOMINAL SIZE FOR THE ENTIRE DEVELOPED LENGTH OF THE PIPE.
9. PC SHALL PROVIDE ALL WATER HEATERS (WATTAGE/INPUT AND CAPACITY AS NOTED IN SCHEDULE). ALL WATER HEATERS SHALL BE THIRD PARTY CERTIFIED; PROVIDE PANS FOR WATER HEATERS IN ACCORDANCE WITH 504.7 OF THE NC PLUMBING CODE. ELECTRICAL CONNECTIONS SHALL BE BY ELECTRICAL CONTRACTOR, PC SHALL COORDINATE WITH EC ON ELECTRICAL CHARACTERISTICS OF THE EQUIPMENT PROVIDED.
10. ALL PUMPS SHALL BE RATED FOR TRANSPORT OF POTABLE WATER. PUMPS IN AN INDIVIDUAL WATER SUPPLY SYSTEM SHALL BE CONSTRUCTED AND INSTALLED SO AS TO PREVENT CONTAMINATION FROM ENTERING THE WATER SUPPLY SYSTEM.

METHODS:

1. EXTEND DOMESTIC WATER PIPE FROM FIVE (5) FEET OUTSIDE THE BUILDING INTO THE BUILDING AS INDICATED ON THE PLANS AND INSTALL DOMESTIC WATER DISTRIBUTION PIPING TO ALL FIXTURES AND EQUIPMENT REQUIRING THE SAME. WATER SERVICE PIPE AND THE BUILDING SEWER SHALL BE SEPARATED BY 5 FEET OF UNDISTURBED OR COMPACTED EARTH IN ACCORDANCE WITH 603.2. PROVIDE ALL FITTINGS, VALVES, AND OTHER ACCESSORIES AS NECESSARY FOR A COMPLETE INSTALLATION. ALL DOMESTIC WATER PIPING SHALL BE CONCEALED IN FINISHED AREAS. ANY OPEN ENDS SHALL BE PROTECTED UNTIL FINAL CONNECTIONS ARE MADE.
2. ABOVE GRADE DOMESTIC WATER PIPING SHALL BE SLOPED AT A MINIMUM OF 1/32 INCH PER FOOT AND ARRANGED TO DRAIN AT LOW POINTS. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR CONNECTED EQUIPMENT. ROUTE PIPING IN AN ORDERLY MANNER-PARALLEL OR PERPENDICULAR TO WALLS WHEN POSSIBLE-AND MAINTAIN GRADIENT. EACH SUPPLY BRANCH LINE SERVING MORE THAN ONE FIXTURE SHALL HAVE A SHUTOFF VALVE INSTALLED TO ISOLATE ALL FIXTURES AND PIECES OF EQUIPMENT SUPPLIED BY THE BRANCH LINE. THE SHUTOFF VALVE SHALL BE LABELED AND LOCATED AS CLOSE TO THE CONNECTION TO THE SUPPLY MAIN AND RISER AS POSSIBLE. PROVIDE A FULL-OPEN VALVE ON THE BASE OF EVERY WATER RISER PIPE AND ON THE TOP OF EVERY WATER DOWN-FEED PIPE. PROVIDE VALVE HANDLE EXTENSIONS AS NECESSARY FOR INSULATION.
3. IT SHALL BE THE RESPONSIBILITY OF THE PC TO SUSPEND AND SUPPORT ALL PIPING SYSTEMS FOLLOWING RECOGNIZED ENGINEERING PRACTICES AND USING STANDARD, COMMERCIALLY ACCEPTED PIPE HANGERS AND SUSPENSION EQUIPMENT. ALL FIXTURES, DEVICES, AND EQUIPMENT SHALL BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND SHALL NOT RELY ON CEILING OR WALL SURFACES FOR SUPPORT. THE SUPPORT ATTACHMENT SHALL SUPPORT THE WEIGHT OF THE FIXTURE OR EQUIPMENT PLUS THE WEIGHT OF THE SUPPORT ATTACHMENT ITSELF. SUPPORT FROM THE TOP CHORD OF THE ROOF JOISTS, GIRDERS, AND BEAMS. THE BOTTOM CHORD IS NOT TO BE USED FOR EQUIPMENT AND PIPING SUPPORT. HANGERS SHALL NOT BE ATTACHED TO CORRUGATED STEEL DECKING. USE STEEL HANGERS FOR STEEL AND PLASTIC PIPE AND COPPER OR COPPER-PLATED HANGERS FOR COPPER PIPE. PROVIDE PROTECTION FOR COPPER PIPING IN CONTACT WITH DISSIMILAR METALS. WHERE COPPER PIPING IS SUPPORTED ON HANGERS WITH OTHER PIPING, PROVIDE A PERMANENT ELECTROLYTIC ISOLATION MATERIAL TO PREVENT CONTACT WITH OTHER METALS. IN GENERAL, HANGERS SHALL BE CLEVIS TYPE, STANDARD WEIGHT. FOR PIPING, HANGER SPACING SHALL BE IN ACCORDANCE WITH TABLE 308.5 OF THE NC PLUMBING CODE. HANGERS AND ACCESSORIES SHALL BE GRINNEL, MASON, OR B-LINE.
4. SLEEVE ALL PIPES PASSING THROUGH PARTITIONS, WALLS, AND FLOORS. SLEEVES IN FLOORS AND INTERIOR WALLS OF POURED IN PLACE CONCRETE, BRICK, TILE, OR MASONRY SHALL BE SCHEDULE 40 STEEL PIPE, MACHINE CUT. SLEEVES IN GYPSUM BOARD WALLS SHALL BE 22 GAUGE, ROLLED GALVANIZED SHEET METAL. TACK WELD ON THE LONGITUDINAL SEAM. PROVIDE SLEEVES WHERE PIPES PASS THROUGH FLOORS AND WALLS ABOVE AND BELOW CEILINGS. PROVIDE SPLIT PIPE SLEEVES IN NEW WALLS BUILT UP AROUND EXISTING PIPES. TACK WELD SPLIT SLEEVES TOGETHER. SLEEVES IN WALLS SHALL BE INSTALLED FLUSH WITH THE WALL. SLEEVES IN FLOORS SHALL EXTEND 3/4 INCH ABOVE THE FLOOR-EXCEPT THEY SHALL BE FLUSH FOR 2 HOUR RATED FLOORS-AND SHALL BE FLUSH WITH THE STRUCTURE BELOW. EACH SLEEVE SHALL HAVE AN INSIDE DIAMETER 1 INCH LARGER THAN THE OUTSIDE DIAMETER OF THE COVERING OF EACH COVERED PIPE TO ALLOW CONTINUOUS INSULATION-BUT NOT LESS THAN TWO PIPE SIZES LARGER THAN EACH UNCOVERED. ANNULAR SPACES BETWEEN SLEEVES AND PIPES SHALL BE FILLED OR CAULKED IN AN APPROVED MANNER.
5. THE TOP OF WATER PIPES INSTALLED BELOW GRADE OUTSIDE THE BUILDING SHALL BE BELOW THE FROST LINE OR A MINIMUM OF 12 INCHES BELOW FINISHED GRADE WHICHEVER IS GREATER. WATER PIPING INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE WALL INSULATION. WATER PIPING INSTALLED IN AN UNCONDITIONED UTILITY ROOM OR UNCONDITIONED ATTIC SHALL BE INSULATED TO A MINIMUM OF R6.5 DETERMINED IN ACCORDANCE WITH ASTM C 177.
6. HOT WATER PROVIDED TO PUBLIC HAND-WASHING FACILITIES/LAVATORIES SHALL BE TEMPERED WATER DELIVERED THROUGH AN APPROVED WATER-TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070 OR CSA B125.3.
7. INSULATE ALL EXPOSED WASTE AND SUPPLY PIPING UNDER LAVATORIES, SINKS, AND ELECTRIC WATER COOLERS WITH THE HANDI-LAV GUARD INSULATION KIT BY TRUEBRO OR EQUAL.
8. POTABLE WATER OUTLETS SHALL BE PROTECTED FROM BACKFLOW IN ACCORDANCE WITH 608.15. PRESSURE TYPE VACUUM BREAKERS SHALL CONFORM TO ASSE 1020 AND SPILPROOF VACUUM BREAKERS SHALL COMPLY WITH ASSE 1056. HOSE-CONNECTION VACUUM BREAKERS SHALL CONFORM TO ASSE 1011, ASSE 1019, ASSE 1035, OR ASSE 1052. CONNECTIONS TO BEVERAGE DISPENSERS, COFFEE MACHINES, AND NON-CARBONATED BEVERAGE DISPENSERS SHALL BE PROTECTED BY A BACKFLOW PREVENTER IN ACCORDANCE WITH ASSE 1022.
9. THE PC SHALL INSTALL WATER HAMMER ARRESTORS ON BRANCH LINES WITH QUICK CLOSING VALVES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. WATER HAMMER ARRESTORS SHALL CONFORM TO ASSE 1010.
10. THE PC SHALL PROVIDE CHECK VALVES AT ALL FIXTURES WITH THREADED OUTLETS AS REQUIRED BY CODE. TRAP PRIMERS SHALL BE PROVIDED AS SHOWN ON THE PLANS OR AS REQUIRED.
11. ADJUST STOPS AND VALVES FOR INTENDED FLOW RATE TO FIXTURES WITHOUT SPLASHING, NOISE, OR OVERFLOW.
12. BEFORE COMMENCING WORK, CHECK INVERT ELEVATIONS REQUIRED FOR SEWER CONNECTIONS, CONFIRM INVERTS, AND VERIFY THESE CAN BE PROPERLY CONNECTED TO WITH SLOPE FOR DRAINAGE AND COVER TO AVOID FREEZING. ONCE INVERTS AND FALL HAVE BEEN ESTABLISHED, EXTEND SANITARY SEWER PIPING TO 5 FEET OUTSIDE THE BUILDING AND INSTALL ALL DRAINS, STACKS, VENTS, FLOOR DRAINS, AND CLEANOUTS NECESSARY FOR A COMPLETE INSTALLATION.
13. ALL SANITARY SEWER PIPING IS BELOW GRADE OR WITHIN WALLS UNLESS OTHERWISE NOTED. ALL SANITARY VENT PIPING IS ABOVE THE CEILING OR WITHIN WALLS UNLESS OTHERWISE NOTED. SOIL AND WASTE PIPING SHALL BE INSTALLED TO PROVIDE PROTECTION AGAINST FREEZING PER 305.6.1. WASTE AND SOIL LINES LEAVING THE BUILDING MUST HAVE A MINIMUM COVER OF 3 INCHES.
14. SOIL AND WASTE LINES 2-1/2 INCHES AND SMALLER SHALL BE SLOPED AT 1/4 INCH PER FOOT MINIMUM. SOIL AND WASTE LINES 3 INCHES TO 6 INCHES IN DIAMETER SHALL BE SLOPED AT 1/8 INCH PER FOOT MINIMUM.
15. FOR WATER CLOSET WASTE CONNECTIONS, A 4 INCH BY 3 INCH CLOSET BEND SHALL BE ACCEPTABLE. WHERE A 3 INCH BEND IS UTILIZED ON WATER CLOSETS, A 4 INCH BY 3 INCH FLANGE SHALL BE INSTALLED TO RECEIVE THE FIXTURE HORN.
16. FOR PLASTIC PIPE SIZES GREATER THAN 6 INCHES, AND OTHER PIPE SIZES GREATER THAN 4 INCHES, RESTRAINTS SHALL BE PROVIDED FOR DRAIN PIPES AT ALL CHANGES IN DIRECTION AND AT ALL CHANGES IN DIAMETER GREATER THAN TWO PIPE SIZES. BRACES, BLOCKS, RODDING, BACKFILL AND OTHER SUITABLE METHODS AS SPECIFIED BY THE COUPLING MANUFACTURER SHALL BE UTILIZED.
17. BASES OF STACKS SHALL BE SUPPORTED BY THE BUILDING STRUCTURE, VIRGIN OR COMPACTED EARTH, OR OTHER SUITABLE MATERIAL TO SUPPORT THE WEIGHT OF THE PIPING.
18. HORIZONTAL DRAIN PIPES SHALL HAVE CLEANOUTS IN ACCORDANCE WITH 708.10. EXTEND CLEANOUTS TO FINISHED FLOOR OR WALL SURFACE. LUBRICATE THREADED CLEANOUT PLUGS WITH A MIXTURE OF GRAPHITE AND LINSEED OIL. ENSURE CLEARANCE AT ALL CLEANOUTS FOR RODDING OF DRAINAGE SYSTEM. INSTALL FLOOR CLEANOUTS AT AN ELEVATION TO ACCOMMODATE FINISHED FLOOR. EVERY CLEANOUT SHALL BE INSTALLED TO ALLOW CLEANING IN THE DIRECTION OF FLOW OF THE DRAINAGE PIPE OR AT RIGHT ANGLES THERETO. CLEANOUTS ON 6 INCH AND SMALLER PIPES SHALL BE PROVIDED WITH A CLEARANCE OF NOT LESS THAN 18 INCHES FOR RODDING.
19. DRAINAGE PIPING FOR FUTURE FIXTURES SHALL TERMINATE WITH AN APPROVED CAP OR PLUG.
20. AIR ADMITTANCE VALVES SHALL BE INSTALLED AFTER THE DWV TESTING REQUIRED BY SECTIONS 312.2 AND 312.3. PROVIDE ACCESS TO ALL AIR ADMITTANCE VALVES PER CODE. INSTALLATION OF ALL AIR ADMITTANCE VALVES SHALL CONFORM TO SECTION 917 OF THE NC PLUMBING CODE. AIR ADMITTANCE VALVES SHALL CONFORM TO ASSE 1050 OR 1051.
21. INDIRECT WASTE PIPING THAT EXCEEDS 2 FEET IN DEVELOPED LENGTH MEASURED HORIZONTALLY, OR 4 FEET IN TOTAL DEVELOPED LENGTH, SHALL BE TRAPPED. THE AIR GAP BETWEEN THE INDIRECT WASTE PIPE AND THE FLOOD LEVEL RIM OF THE WASTE RECEPTOR SHALL BE A MINIMUM OF TWICE THE EFFECTIVE OPENING OF THE INDIRECT WASTE PIPE.
22. THE PC SHALL PROVIDE UNIONS FOR DISASSEMBLY AND SERVICE OF ALL FIXTURES AND OTHER RELEVANT PLUMBING EQUIPMENT. UNIONS SHALL BE GROUND-JOINT WITH BRASS SEAT. PROVIDE INSULATING UNIONS AT EACH JUNCTION OF DISSIMILAR MATERIALS.
23. THE PC SHALL ACCURATELY ROUGH-IN ALL FIXTURES ACCORDING TO MANUFACTURER'S INSTALLATION DIMENSIONS AND INSTRUCTIONS. OFFSET ADAPTERS AND FLEXIBLE CONNECTORS ARE NOT ACCEPTABLE. FLUSH HANDLES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS FOR ADA COMPLIANCE. INSTALL EACH FIXTURE WITH TRAP EASILY REMOVABLE FOR SERVICING AND CLEANING. SEAL FIXTURES TO WALL AND FLOOR SURFACES WITH SEALANT. SOLIDLY ATTACH WATER CLOSETS TO FLOOR WITH LAG SCREW/TDS. SEAL ALL SELF-RIMMING LAVATORIES AND SINKS (VITREOUS CHINA AND STAINLESS STEEL) WITH A COMMERCIAL GRADE PLUMBER'S PUTTY OR ACRYLIC LATEX CAULK APPLIED TO THE UNDERSIDE OF THE FIXTURE RIM IN A GENEROUS AMOUNT SO THAT WHEN FIXTURE IS SET, SEALANT SHALL OOZE OUT.
24. ALL VENT THRU THE ROOF (VTR) PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. PC SHALL PROVIDE FLASHING MATERIAL REQUIRED FOR VTRS. JOINTS AT THE ROOF AND AROUND VENT PIPES, SHALL BE MADE WATER TIGHT BY THE USE OF LEAD, COPPER, GALVANIZED STEEL, ALUMINUM, OR OTHER APPROVED FLASHINGS OR FLASHING MATERIAL. MAINTAIN MINIMUM 10 FEET FROM ALL OUTSIDE AIR INTAKES.

DO NOT TAP WATER
LINE AHEAD OF RPZ.

PLUMBING NOTES AND SCHEDULES 1

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	MANUFACTURER	FITTING	HW	CW	WASTE	VENT
P1H	TANK TYPE WATER CLOSET	AMERICAN STANDARD CHAMPION 4 'RIGHT HEIGHT' #211AA.104 OR EQUAL	FLOOR MOUNTED ADA VITREOUS CHINA ELONGATED FLUSH TANK, 1.28 GPF CLOSED COUPLED TWO PIECE SIPHON JET WATER CLOSET, FLUSH TANK WITH 12" ROUGH IN. PROVIDE AMERICAN STANDARD #211AA.104 OR EQUAL. PROVIDE STOP VALVE, FLEXIBLE SUPPLY LINE AND OPEN FRONT SEAT, NO LID. ADA REQUIREMENT MOUNT SO SEAT IS 17"-19" AFF. ORDER WITH FLUSH LEVER ON OPEN SIDE OF TOILET.	-	½"	3"	2"
P2	WALL MOUNT LAVATORY	AMERICAN STANDARD 0355.0120 OR EQUAL	20"X18" WALL HUNG ADA LAVATORY WITH FRONT OVERFLOW. CONCEALED HANGERS AND 4" CENTERS. AMERICAN STANDARD LUCERNE #0355.012 OR EQUAL. FAUCET SHALL CHROME PLATED CAST BRASS BODY WITH 4" SPOUT, 4" BRASS WRIST BLADE, 0.5 GPM SPRAY AND GRID STRAINER DRAIN. USE AMERICAN STANDARD MONTERREY #5502.175 WITH WATTS MODEL USG-B-M1 TEMPERING VALVE OR EQUAL. ADA REQUIREMENT, MOUNT RIM 34" AFF - INSULATE EXPOSED DRAIN AND WATER PIPES WITH TRUEBRO LAV GUARD KIT #102 E-Z. PROVIDE SUPPLY LINES, STOP VALVES & P-TRAP.	½"	½"	2"	2"
P3	DRINKING FOUNTAIN	ELKAY #EZTLDDLC OR EQUAL	ELKAY 'WATERSENTRY' TWO-STATION, WALL MOUNTED ELECTRIC DRINKING FOUNTAIN, ADA, FRONT ONLY EASY TOUCH CONTROL, HIGH UNIT ON RIGHT. PROVIDE SUPPLY, STOP VALVE & TRAP. PROVIDE CANE APRON AS REQUIRED. CANE FINISH	-	⅜"	2"	2"
P4	FLOOR DRAIN	ZURN Z415-6B-P	6" ZURN FLOOR DRAIN WITH 'TYPE B' ROUND STRAINER AND 1/2" TRAP PRIMER CONNECTION	-	-	2" P-TRAP	2"
P4HB	FLOOR DRAIN WITH HUB	ZURN Z415-6B-P	6" ZURN FLOOR DRAIN WITH 'TYPE B' ROUND STRAINER AND 1/2" TRAP PRIMER CONNECTION, PROVIDE WITH HUB	-	-	2" P-TRAP	2"
P4A	TRAP PRIMER	M2-500, MIGAP, MI-DU-500	PROVIDE PRESSURE DROP ACTIVATED BRASS TRAP SEAL PRIMER, WITH REMOVABLE FILTER SCREEN. MIFAB #M2-500. NO SUBSTITUTIONS. PROVIDE AIR GAP FITTING. MIFAB #MIGAP, NO SUBSTITUTIONS. PROVIDE DISTRIBUTION UNIT, WHERE TRAP PRIMER SERVERS MULTIPLE FLOOR DRAINS, MIFAB, #M1-DU-500, NO SUBSTITUTIONS.	1/2"	-	2"	2"
WCO	WALL CLEANOUT	ZURN Z-1441	ZURN WALL CLEANOUT WITH ACCESS COVER.	-	-	4"	
CO	CLEAN OUT	ZURN LEVEL-TROL	EPOXY COATED CAST IRON FLOOR CLEANOUT WITH ROUND ADJUSTABLE GASKETED NICKEL BRONZE TOP, REMOVABLE GAS TIGHT GASKETED BRASS CLEANOUT PLUG, AND NO HUB INLET.			4"	
YCO	2-WAY YARD CLEAN OUT	TYLER PIPE #003519 OR EQUAL	TRAFFIC RATED	-	-	4"	
P5	WATER HAMMER ARRESTOR	ZURN Z1700 SHOCKTROL 100	INSTALL ON BRANCH LINES PER MFG'S INSTRUCTIONS	-	VARIES	-	
P6	FREEZEPROOF WALL HYDRANT	ZURN #Z-1320 ECOLOTROL WALL HYDRANT	FREEZE PROOF WALL HYDRANT, ENCASED WALL HYDRANT, WITH BRONZE BODY, ANTI-SIPHON VACUUM BREAKER, HOSE CONNECTION, BOX AND LOCKING COVER. MOUNT AT 24" ABOVE FINISHED GRADE. FLUSH MOUNT AND TAMPER RESISTANT. CONTRACTOR TO SUBMIT SPEC. FOR OWNER APPROVAL FOR ALL STORES.	-	¾"	-	
P7	ELECTRIC WATER HEATER	AO SMITH DEL-10 OR EQUAL	10 GALLON, 1.65KW, 120V. PROVIDE DRAIN PAN UNDER SHELF-MOUNTED WATER HEATER. TERMINATE DRAIN LINE IN MOP SINK. PROVIDE FULL T&P RELIEF LINE, TERMINATE 2" ABOVE RIM LEVEL OF MOP SINK. INSTALL PER MANUFACTURER'S INSTRUCTIONS.	¾"	¾"	-	
P8	EXPANSION TANK	AMTROL ST-5	INSTALL ON COLD WATER LINE BETWEEN WATER HEATER AND RPZ	-	¾"	-	
P9	MOP SINK	FIAT MSB2424	USE 830 AA, 889 CC, 1453 BB, AND 832 AA SERVICE FAUCET, PROVIDE WITH WALL GUARD AND MOP HANGER 2" P-TRAP	½"	½"	3"	

PLUMBING FIXTURE SCHEDULE 2

PLUMBING LINES SIZING TABLE

FIXTURE TYPE	OCCUPANCY	QTY	DRAINAGE FIXTURE UNITS		WATER SUPPLY FIXTURE UNITS				
			EACH	TOTAL	CW	HW	CW & HW	HW TOTAL	TOTAL
WATER CLOSET (FLUSH TANK)	PUBLIC	2	4	8	5	0	5	0	10
LAVATORY	PUBLIC	2	1	2	1.5	1.5	2	3.0	4
DRINKING FOUNTAIN	PUBLIC	1	0.5	0.5	0.25	0	0.25	0	0.3
MOP SINK	PUBLIC	1	2	2	2.25	2.25	3	2.25	3
DEMAND FIXTURE	GPM	QTY	TOTAL GPM	TOTAL DFU				12.5	
HOSE BIBBS *	5	2	10	TOTAL WFSUs				5.3	17.3
				GPM				9.8	18.5
				OTHER FIXTURES' GPM				0	5
				TOTAL GPM				9.8	23.5
MINIMUM BUILDING DRAIN SIZE	4"	* ASSUMES ONLY 1 HOSE BIBB RUNNING.							
MINIMUM WATER LINE SIZE	1"								

WATER LINE SIZING TABLE 3

THIS DETAIL USED FOR 4" SANITARY LINE RUN BELOW FIXTURE RACKING. SEE PLANS.

2-WAY YARD CLEAN OUT DETAILS-NO SCALE 4

PROVIDE CLEANOUT WITH ADJUSTABLE CLEANOUT TOP WITH VARIATIONS SUITABLE FOR FLOOR COVERING (CARPET MARKER, RECESSED FOR TILE, SCORIATED FOR UNFINISHED FLOORS). CLEAN THE TOP OF EXPOSED FCO AFTER INSTALLATION.

REFER TO SPECIFICATIONS AND SCHEDULE FOR MORE INFORMATION. LOCATE AT BUILDING EXIT, AT ENDS OF RUNS, AT TURNS OF PIPE GREATER THAN 45°, AT 50' INTERVALS ON STRAIGHT RUNS, AND/OR WHERE SHOWN ON PLANS AND RISERS. PROVIDE BACKFILL PER ARCHITECTURAL SPECIFICATIONS. LOCATE CLEANOUT WHERE THERE IS 18" CLEAR AROUND, FOR ACCESSIBILITY. CONSULT LOCAL CODES AND OFFICIALS FOR OTHER REQUIREMENTS.

FLOOR CLEAN OUT DETAILS-NO SCALE 5

LARGE SCALE MOP SINK DETAIL-NO SCALE 6

NOTE:
CONNECT VENT TO SOIL OR WASTE PIPING ABOVE CENTERLINE. UNDER SLAB HORIZONTAL CONNECTIONS OF VENT PIPING TO WASTE SEWER SYSTEM PIPELINE SHALL NOT BE ALLOWED.

6/P2 VENT PIPE INSTALLATION DETAIL
SCALE: NOT TO SCALE

VENT PIPE INSTALLATION DETAIL-NO SCALE 9

MOP SINK WATER HEATER DETAIL - NO SCALE 7

NOTES:
1. DISTRIBUTION UNIT SHALL BE US WHERE TRAP PRIMER VALVE SEF MULTIPLE FLOOR DRAINS (UP TO 3 FLOOR DRAINS MAXIMUI
2. ALL PIPING SHALL BE SECURELY ATTACHED TO WALL.

TYPICAL TRAP PRIMER DETAIL - NO SCALE 8

SKYSINK DETAIL-NO SCALE 10

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STATE OF NEW YORK
JACOB A. BENDER
103909
LICENSED PROFESSIONAL ENGINEER
6/29/23

DOLLAR GENERAL
STORE# 25355
7174 ALLEGHANY RD
BASOM, NY

REVISION:

NO.	DATE	DESCRIPTION

ISSUED:

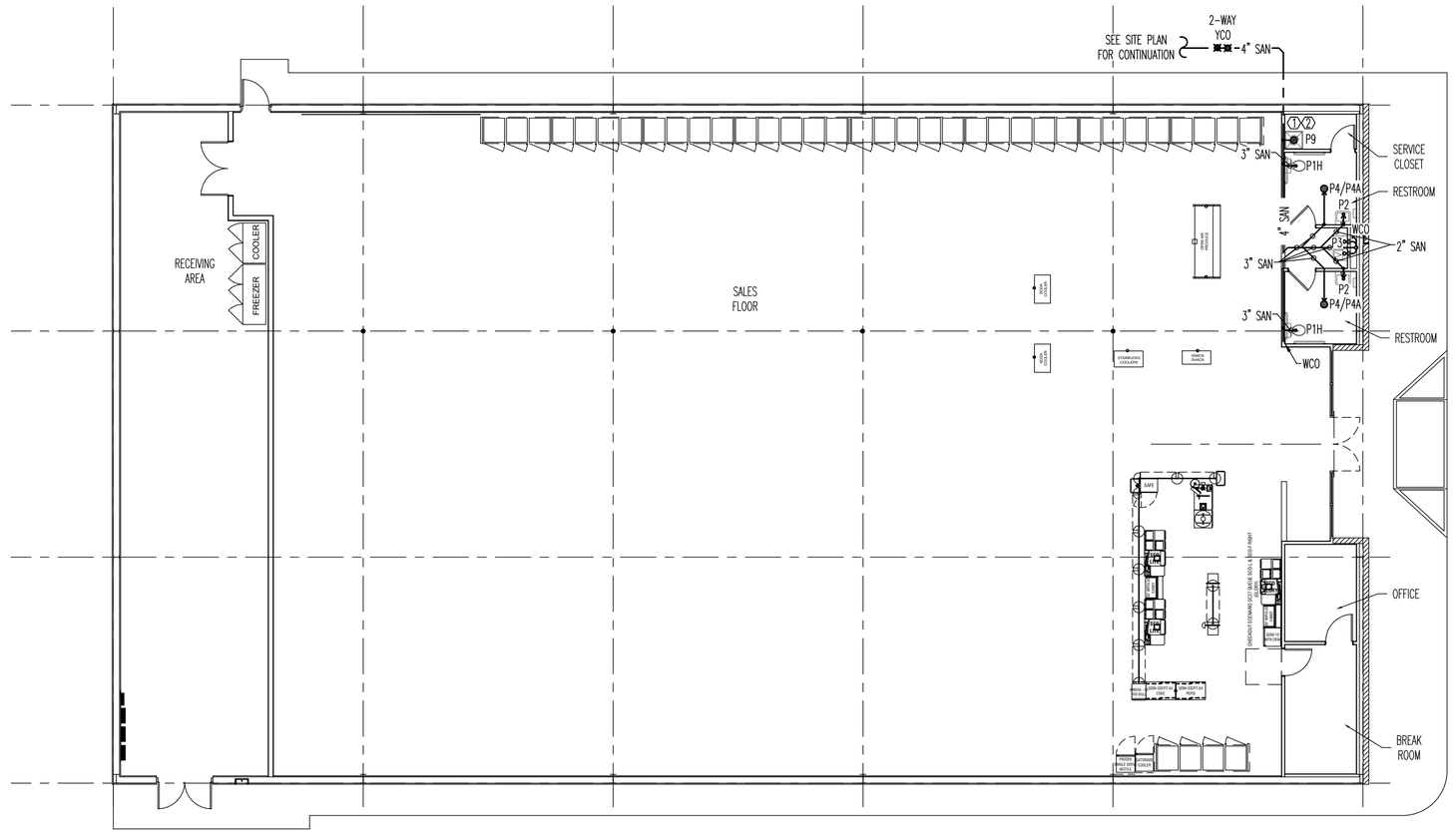
NO.	DATE	DESCRIPTION
1	06/29/2023	FOR PERMITTING

DRAWN BY: REW/TD
CHECKED BY: JAB/REW

PLUMBING PLAN AND DETAILS

SHEET NO.
P0

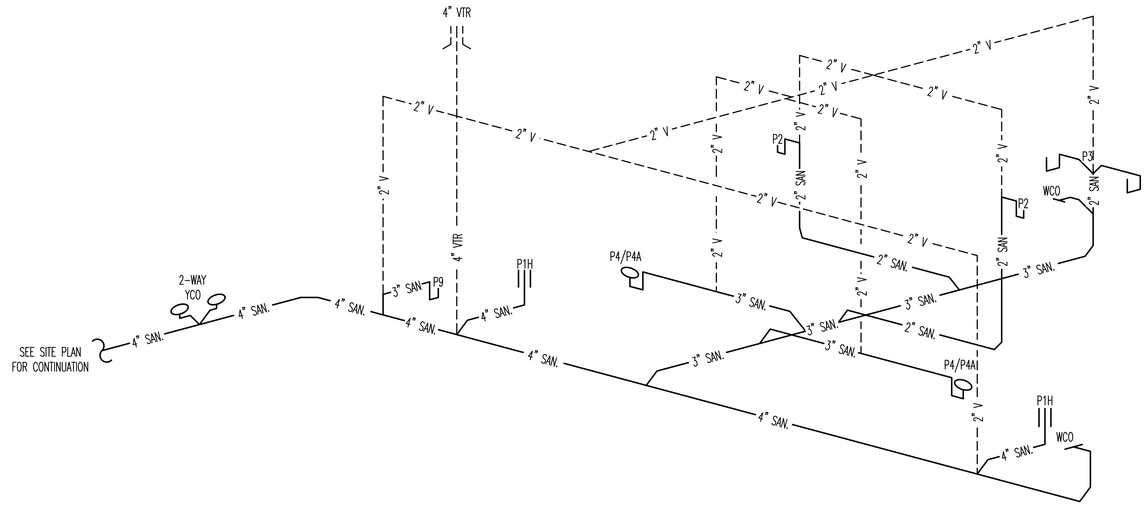
PROJECT NO: 230338



PLUMBING PLAN - SCALE: 1/8"=1' | 1

PLUMBING KEYED NOTES

1. WATER HEATER MOUNTED ABOVE MOP SINK. ROUTE DRAIN PAN DRAIN AND T&P RELIEF VALVE DRAIN FROM WATER HEATER DOWN WALL TO MOP SINK BASIN AND SPILL INTO.
2. ROUTE RTU CONDENSATE LINE TO SPILL INDIRECTLY TO MOP SINK. PITCH PIPE WITH ROOF SLOPE (TYP.).



DWV RISER - NO SCALE | 2

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PLUMBING PLAN AND DWV RISER

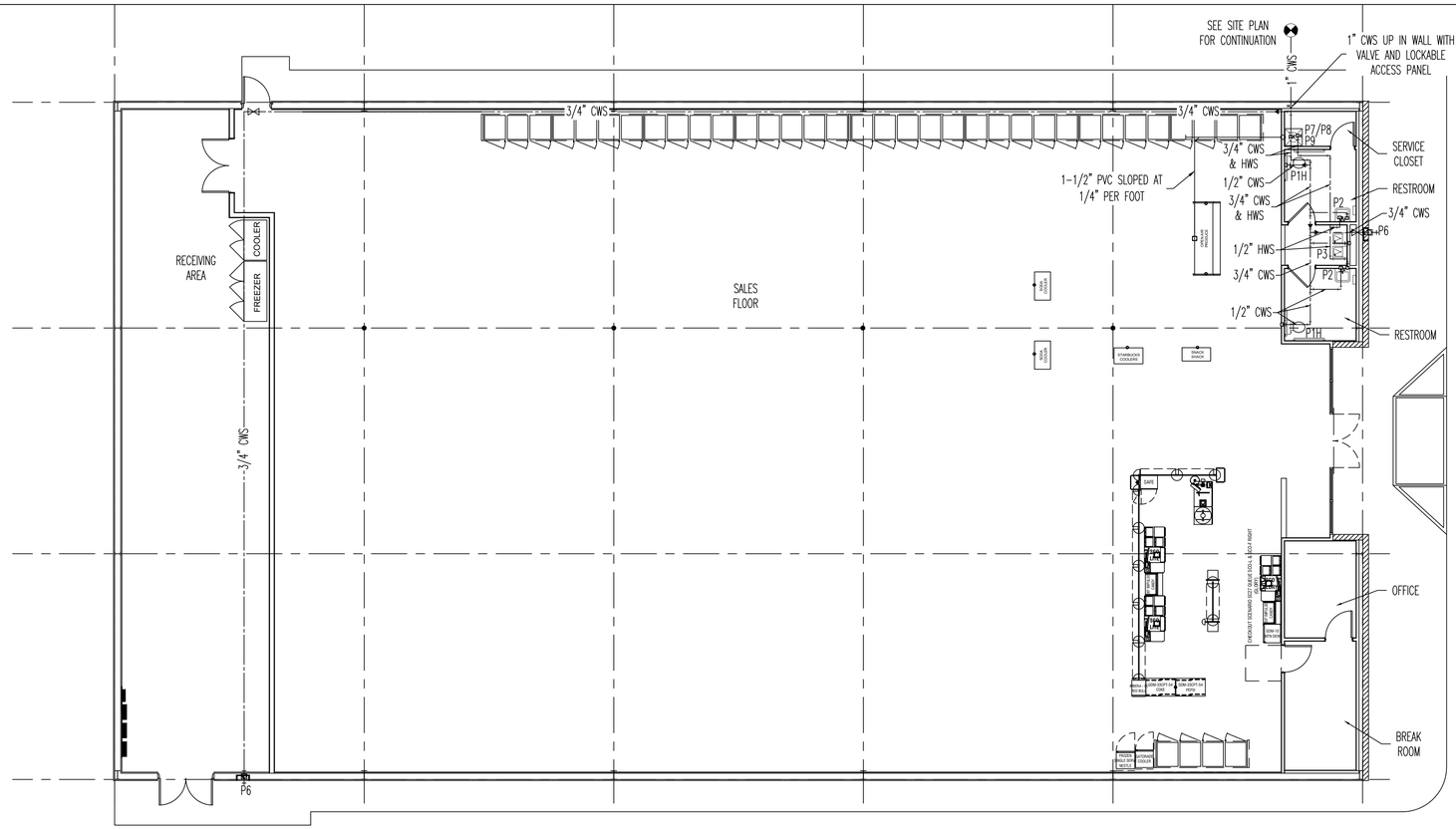
SHEET NO.
P1

PROJECT NO: 230338

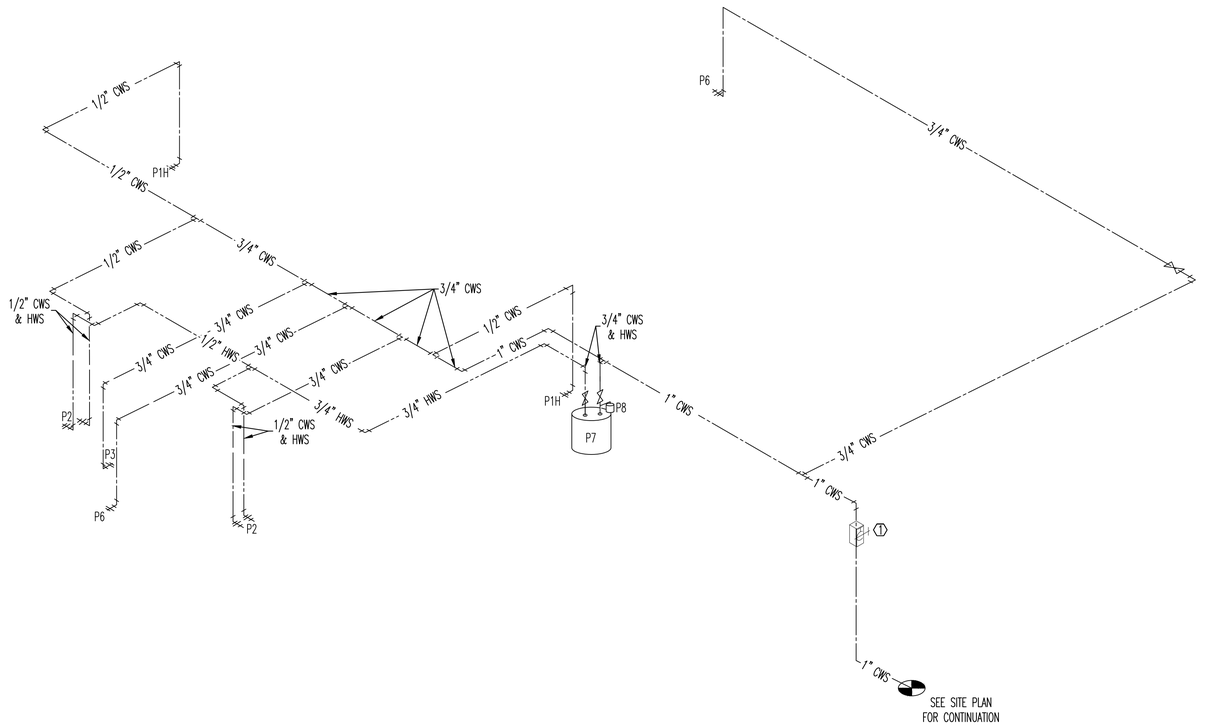
PLUMBING KEYED NOTES

1. 1"CW UP IN WALL WITH VALVE AND LOCKABLE ACCESS PANEL.
2. PLUMBING CONTRACTOR TO RUN WATER LINE IN SALES AREA AS HIGH AS POSSIBLE OVERHEAD.
3. CONTRACTOR TO COORDINATE WATER METER SIZES WITH LOCAL WATER COMPANY AND CIVIL.

* PROVIDE FULL-OPEN AND SHUT OFF VALVES PER 2020 NY PLUMBING CODE 606.1 THROUGH 606.3



DOMESTIC WATER DELIVERY PLAN - SCALE: 1/8"=1' | 1



DOMESTIC WATER DELIVERY RISER - NO SCALE | 2

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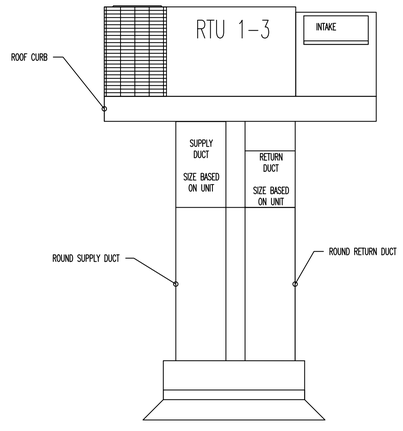
DOMESTIC WATER DELIVERY PLAN AND RISER

SHEET NO.

P2

PROJECT NO: 230338



GENERAL MECHANICAL NOTES:

ADMINISTRATIVE:

1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS: PC – PLUMBING CONTRACTOR, EC – ELECTRICAL CONTRACTOR, MC – MECHANICAL CONTRACTOR, GC – GENERAL CONTRACTOR, FASC – FIRE ALARM SYSTEM CONTRACTOR.
2. "PROVIDE" MEANS TO FURNISH AND INSTALL. MC SHALL ALSO INSTALL MATERIALS FURNISHED BY OTHERS AND GENERAL CONTRACTOR AS SHOWN ON THE PLANS OR NECESSARY FOR A COMPLETE INSTALLATION.
3. THE MC SHALL BE RESPONSIBLE FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
4. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED BY THE CONTRACTOR AT AN APPROVED LOCATION. THE MC SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE MC UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.
5. THE MC SHALL INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE 2020 NEW YORK MECHANICAL AND BUILDING CODES AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE MC SHALL OBTAIN CLARIFICATION FROM THE ENGINEER OR IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE REQUIREMENTS.
6. THE MC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
7. DO NOT SCALE THESE DRAWINGS–REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
8. THE MC SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE MC SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE MC SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
9. ALL MECHANICAL MATERIALS SHALL BE NEW AND FREE OF DEFECT AND LISTED AND LABELED BY UL OR AN APPROVED THIRD PARTY AGENCY. ANY MATERIALS FOUND TO BE DEFECTIVE SHALL BE REPLACED BY THE MC WITHOUT ADDITIONAL COST TO THE OWNER. WHERE A MANUFACTURER AND MODEL NUMBER IS GIVEN, THE CITED EXAMPLE IS INTENDED TO ESTABLISH A STANDARD OF QUALITY AND NOT TO LIMIT PRODUCTS TO A PARTICULAR MANUFACTURER. SUCH EXAMPLES ARE USED TO CONVEY A GENERAL STYLE, TYPE, CHARACTER, AND QUALITY OF THE PRODUCT DESIRED; PRODUCTS DETERMINED TO BE EQUAL BY THE ENGINEER WILL BE ACCEPTED.
10. THESE PLANS ARE DIAGRAMMATIC. THE MC SHALL ADJUST THE LOCATIONS OF EQUIPMENT, DUCTS, REGISTERS, GRILLES, ETC, TO ACCOMMODATE PLANNED AND ENCOUNTERED INTERFERENCES. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THE MC SHALL MAKE ALLOWANCES FOR SUCH DEVIATIONS AND CONTINGENCIES IN BID TO IMPLEMENT THEM WITHOUT ADDITIONAL COST TO THE OWNER.
11. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING.
12. IT IS THE MC'S RESPONSIBILITY TO VERIFY THAT ITEMS FURNISHED FOR THIS CONTRACT WILL FIT IN THE SPACE AVAILABLE. THE MC SHALL MAKE FIELD MEASUREMENTS AS NECESSARY TO DETERMINE SPACE REQUIREMENTS. IF THE MC MUST ALTER EQUIPMENT DUE TO SPACE CONSIDERATIONS, THE MC SHALL PROVIDE SIZES AND SHAPES THAT FIT THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS.
13. MC SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR REGARDING THE ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT BEING PROVIDED.
14. MAINTAIN CLEARANCES FOR ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS FOR SERVICEABILITY. ALL ROOFTOP EQUIPMENT MUST BE A MINIMUM OF 10 FEET FROM ROOF EDGE.
15. MC SHALL FURNISH A BOUND SET OF OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF THE PROJECT. MC SHALL PROVIDE ALL DOCUMENTATION TO THE OWNER AS NECESSARY TO SUBMIT FOR FACTORY WARRANTIES.
16. CONTRACTOR SHALL PROTECT ALL HVAC EQUIPMENT FROM CONSTRUCTION AND SHEET ROCK DUST DURING CONSTRUCTION. ALL FILTERS SHALL BE REPLACED WITH NEW AT THE COMPLETION OF THE PROJECT.
17. ALL EQUIPMENT INSTALLED ON ROOF MUST BE WITHIN THE ROOF SCREEN.
18. IF A ROOF PENETRATION IS REQUIRED AND THE ROOF IS UNDER WARRANTY, USE THE AUTHORIZED ROOFER. PROVIDE DOCUMENTATION.
19. ALL PIPING, WIRING, CONDUIT, INSULATION, EQUIPMENT, SUPPORTS, ETC. SHALL BE SUITABLE FOR INSTALLATION IN A RETURN PLENUM AS NECESSARY. COORDINATE WITH OTHER TRADES ON LOCATIONS OF ALL PLENUMS.
20. MC SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE ALL APPLICABLE CONSTRUCTION WASTE IS RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT.

MATERIALS:

1. THE MC SHALL PROVIDE ALL DX UNITARY HEATING AND COOLING EQUIPMENT AS SCHEDULED ON THE DRAWINGS. AIR-COOLED ROOFTOP AIR CONDITIONER UNITS, SHALL BE BY CARRIER, NO SUBSTITUTIONS. THE MC SHALL PROVIDE FACTORY AND FIELD INSTALLED ACCESSORIES AS SCHEDULED OR AS NECESSARY FOR A COMPLETE AND OPERATIONAL HVAC SYSTEM.
2. THE MC SHALL PROVIDE ALL EXHAUST AND SUPPLY FANS AS SCHEDULED. FANS SHALL BE BY GREENHECK, LOREN COOK, TWIN CITY, OR PENNBARRY.
3. DUCTWORK IS SHOWN WITH FREE AREA DIMENSIONS. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA LOW PRESSURE DUCT STANDARD, 2 INCH S.P.
4. EXTERNAL DUCT INSULATION AND FACTORY-INSULATED FLEXIBLE DUCT SHALL BE LEGIBLY PRINTED OR IDENTIFIED AT INTERVALS NOT GREATER THAN 36 INCHES WITH THE NAME OF THE MANUFACTURER, THE THERMAL RESISTANCE R-VALUE AT THE SPECIFIED INSTALLED THICKNESS AND THE FLAME SPREAD AND SMOKE-DEVELOPED INDEXES OF THE COMPOSITE MATERIALS. ALL DUCT INSULATION PRODUCT R-VALUES SHALL BE BASED ON INSULATION ONLY, EXCLUDING AIR FILMS, VAPOR RETARDERS OR OTHER DUCT COMPONENTS, AND SHALL BE BASED ON TESTED C-VALUES AT 75°F MEAN TEMPERATURE AT THE INSTALLED THICKNESS, IN ACCORDANCE WITH RECOGNIZED INDUSTRY PROCEDURES. THE INSTALLED THICKNESS OF DUCT INSULATION USED TO DETERMINE ITS R-VALUES SHALL BE DETERMINED AS FOLLOWS:
   - 4.1. FOR DUCT BOARD, DUCT LINER AND FACTORY-MADE RIGID DUCTS NOT NORMALLY SUBJECTED TO COMPRESSION, THE NOMINAL INSULATION THICKNESS SHALL BE USED.
   - 4.2. FOR DUCT WRAP, THE INSTALLED THICKNESS SHALL BE ASSUMED TO BE 75 PERCENT (25-PERCENT COMPRESSION) OF NOMINAL THICKNESS.
   - 4.3. FOR FACTORY-MADE FLEXIBLE AIR DUCTS, THE INSTALLED THICKNESS SHALL BE DETERMINED BY DIVIDING THE DIFFERENCE BETWEEN THE ACTUAL OUTSIDE DIAMETER AND NOMINAL INSIDE DIAMETER BY TWO.
5. DUCT LINER MAY BE SUBSTITUTED FOR EXTERIOR DUCT WRAP. DUCT LINER INSULATION MATERIALS SHALL MEET THE REQUIREMENTS OF ASTM C 1071, AND ASTM G 21. EXTERIOR DUCT R-VALUE SHALL BE R-8 AND INTERIOR R-VALUE SHALL BE R-6 IN ACCORDANCE WITH THE 2020 NEW YORK ENERGY CONSERVATION CODE. NOMINAL DUCT SIZES SHALL BE ADJUSTED AS NECESSARY SO THAT FREE AREA DIMENSIONS ARE PRESERVED AS SHOWN ON THE PLANS. FABRICATION AND INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS AND TO THE REQUIREMENTS OF THE LATEST EDITION OF THE NORTH AMERICAN INSULATION MANUFACTURERS ASSOCIATION FIBROUS GLASS DUCT LINER STANDARDS AND/OR SMACNA HVAC DUCT CONSTRUCTION STANDARDS. DUCT LINER SHALL HAVE A BLACK PIGMENTED MAT ON THE AIRSTREAM SIDE TO RESIST DAMAGE DURING INSTALLATION AND SERVICE. EDGES SHALL BE FACTORY COATED WITH BLACK PIGMENTED COATING TO COMPLY WITH SMACNA DCS REQUIREMENTS. ALL PORTIONS OF DUCT DESIGNATED TO RECEIVE DUCT LINER SHALL BE COMPLETELY COVERED WITH DUCT LINER. TRANSVERSE JOINTS SHALL BE NEATLY BUTTED AND THERE SHALL BE NO INTERRUPTIONS OR GAPS. THE BLACK PIGMENTED OR MAT FACED SURFACES SHALL FACE THE AIRSTREAM. DUCT LINER SHALL BE ADHERED TO THE SHEET METAL WITH 90 PERCENT COVERAGE OF ADHESIVE COMPLYING WITH REQUIREMENTS OF ASTM C 916. ALL EXPOSED LEADING EDGES AND TRANSVERSE JOINTS SHALL BE FACTORY COATED OR COATED WITH ADHESIVE DURING FABRICATION. DUCT LINER SHALL BE ADDITIONALLY SECURED WITH MECHANICAL FASTENERS, EITHER WELD-SECURED OR IMPACT DRIVEN, WHICH SHALL COMPRESS THE DUCT LINER SUFFICIENTLY TO HOLD IT FIRMLY IN PLACE. ADHESIVE BONDED PINS ARE NOT PERMITTED DUE TO LONG-TERM ADHESIVE AGING CHARACTERISTICS. LININGS SHALL BE INTERRUPTED AT THE AREA OF OPERATION OF A FIRE DAMPER AND AT A MINIMUM OF 6 INCHES UPSTREAM AND 6 INCHES DOWNSTREAM OF ELECTRIC RESISTANCE AND FUEL-BURNING HEATERS IN A DUCT SYSTEM. METAL NOSINGS OR SLEEVES SHALL BE INSTALLED OVER EXPOSED DUCT LINER THAT FACE OPPOSITE THE DIRECTION OF AIRFLOW. UPON COMPLETION OF INSTALLATION OF DUCT LINER AND BEFORE OPERATION IS TO COMMENCE, VISUALLY INSPECT SYSTEM AND VERIFY THAT THE DUCT LINER IS PROPERLY INSTALLED. OPEN ALL SYSTEM DAMPERS AND TURN ON FANS TO BLOW ALL SCRAPS AND OTHER LOOSE PIECES OF MATERIAL OUT OF THE DUCT SYSTEM. ALLOW FOR A MEANS OF REMOVAL OF SUCH MATERIAL.
6. ALL INSULATION CONTAINING FIBROUS MATERIALS EXPOSED TO AIRFLOW SHALL BE RATED FOR THAT EXPOSURE OR SHALL BE ENCAPSULATED. INSULATING PROPERTIES FOR ALL MATERIALS SHALL MEET OR EXCEED INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578. ALL INSULATION SHALL HAVE FORMALDEHYDE EMISSIONS NOT GREATER THAN 0.05 PPM. THE MAXIMUM FLAME SPREAD AND SMOKE DEVELOPED INDEX FOR INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL CODES AND ORDINANCES ADOPTED BY THE JURISDICTION IN WHICH THE BUILDING IS LOCATED.
7. MASTIC USED TO SEAL DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A-95 OR UL 181B-98. MAINTAIN AMBIENT TEMPERATURES AND CONDITIONS REQUIRED BY MANUFACTURER OF ADHESIVES, MASTICS, AND INSULATION CEMENTS. DO NOT INSTALL DUCT SEALANT WHEN TEMPERATURES ARE LESS THAT THOSE RECOMMENDED BY THE SEALANT MANUFACTURER.
8. ALL ADHESIVES AND SEALANTS SHALL HAVE VOC CONTENT BELOW 20 GRAMS PER LITER AND WHICH MEET THE REQUIREMENTS OF THE MANUFACTURER OF THE PRODUCTS BEING ADHERED OR INVOLVED. ADHESIVES AND SEALANTS SHALL CONTAIN NO HEAVY METALS OR FORMALDEHYDE.
9. FACTORY-MADE AIR DUCTS AND CONNECTORS SHALL COMPLY WITH UL 181-96.
10. FLEXIBLE DUCT SHALL BE UL LISTED CLASS 0 OR CLASS 1, INSULATED, AND COMPLY WITH UL 181. FLEXIBLE DUCT SHALL BE FACTORY FORMED, COMPOSED OF SPIRAL WOUND CORROSION RESISTANT WIRE BONDED TO AN INNER FABRIC LINER. DUCT SHALL BE FACTORY INSULATED WITH A FOIL VAPOR BARRIER JACKET. CONNECT TO RIGID DUCT WITH SPIN-IN FITTING AND DAMPER. FLEXIBLE DUCTS AND AIR CONNECTORS SHALL NOT PASS THROUGH ANY FIRE RESISTANCE RATED ASSEMBLY.
11. THE MC SHALL PROVIDE ALL DIFFUSERS GRILLES, LOUVERS, AND OTHER AIR DISTRIBUTION OUTLETS AND INLETS. LOUVERS, GRILLES, AND DIFFUSERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. FOR LAY-IN CEILINGS, INSTALL SUPPORT FROM THE STRUCTURE FOR EACH DIFFUSER OR DAMPER. AIR DISTRIBUTION OUTLETS AND INLETS SHALL BE BY HART & COOLEY, PRICE, METAL-AIRE, NAILOR, OR CARNES.
12. AIR FILTERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 605 OF THE 2020 NEW YORK MECHANICAL CODE.
13. THE MC SHALL PROVIDE ALL REFRIGERATION PIPING. ALL PIPE AND FITTINGS SHALL BE TYPE ACR HARD COPPER TUBING WITH SWEAT FITTINGS. REFRIGERATION LINES SHALL BE RUN NEATLY. WHERE A GROUP OF LINES ARE RUN, TRAPEZE HANGERS MAY BE USED. DO NOT USE CHAIN OR WIRE HANGERS. WRAP TUBING WITH RUBBER TAPE AT EACH CLAMP OR HANGER. FOR COVERED PIPES, HANGERS SHALL FIT AROUND THE OUTSIDE OF THE COVERING WITH 12 GAUGE GALVANIZED STEEL SHIELDS OF A LENGTH EQUAL TO THE OUTSIDE DIAMETER OF THE INSULATION AND COVERING 3/4 OF THE CIRCUMFERENCE OF THE INSULATION. SAGS SHALL NOT BE PERMISSIBLE. HORIZONTAL LINES SHALL PITCH DOWN NOT LESS THAN 1 INCH IN 40 FEET. INSULATE WITH 1 INCH CLOSED CELL ARMAFLEX TYPE INSULATION WITH A FLAME DENSITY RATING LESS THAN 25 AND A SMOKE DENSITY RATING LESS THAN 50. ALL JOINTS AND SPLICES IN INSULATION SHALL BE TAPED AND AIR TIGHT. SOLDER REFRIGERATION LINES USING 15 PERCENT SILVER SOLDER AND EVACUATE LINES TO 300 MICRONS. PROVIDE MOISTURE INDICATING SIGHT GLASS AND FILTER DRYER IN LIQUID LINE. PROVIDE OIL TRAPS AND DOUBLE RISERS IN REFRIGERANT SUCTION AND HOT GAS LINES WHERE REQUIRED TO PREVENT OIL SLUGGING AT THE COMPRESSOR AND INSURE PROPER LUBRICATION. MC SHALL BE RESPONSIBLE FOR SEALING LINE SET PENETRATIONS OF ANY RATED ASSEMBLIES IN ACCORDANCE WITH A SYSTEM LISTED IN THE UL DIRECTORY FOR THE SPECIFIC ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR A LIST OF ALL UL FIRE RATED ASSEMBLIES.

METHODS:

1. INSULATE DUCTWORK WITH FIBERGLASS DUCT WRAP; INSTALLED R-VALUE SHALL BE A MINIMUM R-6. COVERINGS AND LININGS, INCLUDING ADHESIVES WHEN USED, SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL NEW DUCTWORK SHALL RECEIVE INSULATION ON THE OUTSIDE. INSTALL DUCT WRAP INSULATION WITH FACING OUTSIDE SO THAT TAPE FLAP OVERLAPS INSULATION AND FACING OF ADJACENT PIECE OF DUCT WRAP. INSULATION SHALL BE TIGHTLY BUTTED. FOR RECTANGULAR DUCTS, INSTALL SO INSULATION IS NOT EXCESSIVELY COMPRESSED AT DUCT CORNERS. STAPLE SEAMS APPROXIMATELY 6 INCHES ON CENTER WITH OUTWARD CLINCHING STAPLES. SEAL SEAMS WITH PRESSURE SENSITIVE TAPE MATCHING THE FACING. FOR RECTANGULAR DUCTS 24 INCHES IN WIDTH OR GREATER, SECURE DUCT WRAP TO THE BOTTOM OF THE DUCT WITH MECHANICAL FASTENERS SPACED 18 INCHES ON CENTER TO PREVENT SAGGING OF INSULATION. ADJACENT SECTIONS OF DUCT WRAP SHALL BE TIGHTLY BUTTED WITH THE 2 INCH TAPE FLAP OVERLAPPING. ALL TEARS, PUNCTURES, ETC. OF THE DUCT WRAP INSULATION SHALL BE SEALED WITH TAPE OR MASTIC TO PROVIDE A VAPOR TIGHT SYSTEM. INSULATION SHALL BE BY KNAUF INSULATION, OWENS CORNING CORP, OR CERTAINTEED CORPORATION.
2. VERIFY THAT DUCTS HAVE BEEN TESTED BEFORE APPLYING INSULATION MATERIALS. VERIFY THAT DUCT SURFACES ARE CLEAN, DRY AND FREE OF FOREIGN MATERIAL PRIOR TO INSULATING. DUCT COVERINGS SHALL NOT PENETRATE A WALL OR FLOOR REQUIRED TO HAVE A FIRE-RESISTANCE RATING OR REQUIRED TO BE FIRE BLOCKED.
3. WHERE DUCTS ARE CONNECTED TO EXTERIOR WALL LOUVERS AND DUCT OUTLET IS SMALLER THAN LOUVER FRAME, PROVIDE BLANK-OUT PANELS SEALING LOUVER AREA AROUND DUCT. USE SAME MATERIAL AS DUCT, PAINTED BLACK ON EXTERIOR SIDE; SEAL TO LOUVER FRAME AND DUCT.
4. PROVIDE DUCT ACCESS DOORS FOR INSPECTION AND CLEANING BEFORE AND AFTER FILTERS, COILS, FANS, AUTOMATIC DAMPERS, AT FIRE DAMPERS, COMBINATION FIRE AND SMOKE DAMPERS.
5. CONSTRUCT T's, BENDS, AND ELBOWS WITH RADII OF NOT LESS THAN 1-1/2 TIMES THE WIDTH OF THE DUCT ON CENTERLINE. WHERE NOT POSSIBLE AND WHERE RECTANGULAR ELBOWS MUST BE USED, PROVIDE TURNING VANES.
6. INCREASE DUCT SIZES GRADUALLY, NOT EXCEEDING 15 DEGREES DIVERGENCE; MAXIMUM OF 30 DEGREES DIVERGENCE UPSTREAM OF EQUIPMENT AND 45 DEGREES CONVERGENCE DOWNSTREAM.
7. IT SHALL BE THE RESPONSIBILITY OF THE MC TO SUSPEND AND SUPPORT ALL EQUIPMENT, DUCTWORK, DIFFUSERS, AND OTHER MATERIALS FOLLOWING RECOGNIZED ENGINEERING PRACTICES AND USING STANDARD, COMMERCIALLY ACCEPTED HANGERS AND SUSPENSION EQUIPMENT. ALL HVAC EQUIPMENT SHALL BE SECURELY MOUNTED TO THE BUILDING STRUCTURE AND SHALL NOT RELY ON CEILING OR WALL SURFACES FOR SUPPORT. THE SUPPORT ATTACHMENT SHALL SUPPORT THE WEIGHT OF THE EQUIPMENT PLUS THE WEIGHT OF THE SUPPORT ATTACHMENT ITSELF. SUPPORT FROM THE TOP CHORD OF THE ROOF JOISTS, GIRDERS, AND BEAMS. THE BOTTOM CHORD IS NOT TO BE USED FOR EQUIPMENT OR PIPING SUPPORT. HANGERS SHALL NOT BE ATTACHED TO CORRUGATED STEEL DECKING.
8. DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH SMACNA AT INTERVALS NOT EXCEEDING 10 FEET. DUCTS 36 INCHES OR LARGER SHALL HAVE TRAPEZE TYPE HANGERS SUSPENDED WITH THREADED ROD. SUPPORT DUCTS FROM BAR JOISTS, GIRDERS, OR BEAMS.
9. CHECK LOCATIONS OF AIR OUTLETS AND INLETS AND MAKE NECESSARY ADJUSTMENTS IN POSITION TO CONFORM WITH ARCHITECTURAL FEATURES, SYMMETRY, AND LIGHTING ARRANGEMENT. COORDINATE WITH SPRINKLER CONTRACTOR IF APPLICABLE.
10. PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY WHERE BRANCHES ARE TAKEN FROM LARGER DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL MINIMUM 2 DUCT WIDTHS FROM DUCT TAKE-OFF. PROVIDE BALANCING DAMPERS ON DUCT TAKE-OFFS TO DIFFUSERS, AND REGISTERS, REGARDLESS OF WHETHER DAMPERS ARE SPECIFIED AS PART OF THE DIFFUSER OR REGISTER ASSEMBLY. ADJUST AIR HANDLING AND DISTRIBUTION SYSTEMS TO PROVIDE DESIGN SUPPLY, RETURN, AND EXHAUST AIR QUANTITIES AT SITE ALTITUDE.
11. MC SHALL INSTALL FIRE DAMPERS AT EACH PENETRATION OF A RATED WALL AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. FIRE DAMPERS SHALL BE UL LABELED (UL 555), CURTAIN TYPE, WITH INTEGRAL FACTORY SLEEVE AND BLADES LOCATED OUTSIDE THE AIR STREAM. INSTALLATION OF ALL FIRE DAMPERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND SECTION 607 OF THE 2018 NC MECHANICAL CODE. PROVIDE ACCESS PANELS FOR TESTING AND SERVICE AS NECESSARY. MC SHALL PROVIDE RADIATION DAMPERS AND THERMAL BLANKETS FOR ALL PENETRATIONS OF RATED CEILING ASSEMBLIES. RADIATION DAMPERS SHALL BE UL LABELED (UL 555C) AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC INSTALLATION INSTRUCTIONS. FIRE DAMPERS, COMBINATION FIRE/SMOKE DAMPERS, AND CEILING RADIATION DAMPERS SHALL BE BY RUSKIN, NAILOR, OR LLOYD INDUSTRIES.
12. MC SHALL INSTALL A SMOKE DETECTOR-UL LISTED FOR DUCT INSTALLATION (UL 268A) IN EACH UNIT'S RETURN UPSTREAM OF ANY FILTERS, OUTSIDE AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT. DUCT SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72. DUCT SMOKE DETECTOR SUPERVISION SHALL COMPLY WITH 606.4.1 OF THE 2020 NEW YORK MECHANICAL CODE. IF THE BUILDING IS (TO BE) EQUIPPED WITH A FIRE ALARM SYSTEM, THE FIRE ALARM SYSTEM CONTRACTOR SHALL FURNISH AND WIRE ALL DUCT SMOKE DETECTORS. IF THE BUILDING IS NOT PROVIDED WITH A FIRE ALARM SYSTEM, THE MC SHALL FURNISH AND WIRE THE DUCT SMOKE DETECTORS AND A/V DEVICE. IT SHALL BE THE RESPONSIBILITY OF THE MC TO INSTALL ALL SMOKE DUCT DETECTORS PER NFPA AND MFG'S INSTALLATION INSTRUCTIONS REGARDLESS OF WHO FURNISHES THE DEVICES.
13. MC SHALL INSTALL PROGRAMMABLE THERMOSTATS AS SHOWN ON THE PLANS. THERMOSTAT SHALL BE MOUNTED AT 48 INCHES AFF. THERMOSTATS SHALL MEET THE REQUIREMENTS OF ASHRAE 90.1 2013 SECTION 6.4.3.3.1.a
14. FRESH AIR INTAKES SHALL BE INSTALLED ON ALL UNITS AS SHOWN ON DRAWINGS. MAINTAIN 10 FEET OF DISTANCE BETWEEN FRESH AIR INTAKES AND ALL EXHAUST TERMINATIONS AND PLUMBING VENT THRU ROOFS.
15. UNITS PROVIDED WITH ECONOMIZERS SHALL ALSO BE PROVIDED WITH POWERED EXHAUST AND COMPARATIVE ENTHALPY CONTROLS.
16. MC SHALL INSTALL ALL EXHAUST FANS AND VENT TO THE BUILDING'S EXTERIOR. EC SHALL SWITCH FANS WITH LIGHTS OR ON SEPARATE SWITCH AS SHOWN.
17. P-TRAPS MUST BE INSTALLED ON ALL UNITS. MC SHALL INSTALL AUXILIARY DRAIN PANS UNDER OVERHEAD AIR HANDLERS AND AN AUTOMATIC CUT-OFF FLOAT SWITCH FOR EACH. P-TRAPS AND CONDENSATE LINES SHALL BE 1 INCH. P-TRAPS AND CONDENSATE LINES MAY BE PVC WHERE NOT LOCATED IN PLENUMS; OTHERWISE, THEY SHALL BE TYPE M COPPER.
18. INSTALL BACKDRAFT DAMPERS ON FRESH AIR AND EXHAUST DUCTS WHERE THEY PENETRATE THE THERMAL ENVELOPE PER NEW YORK 2020 ENERGY CONSERVATION CODE C402.5.5

MECHANICAL NOTES AND SCHEDULES | 1

MECHANICAL SYSTEM, SERVICE SYSTEMS, AND EQUIPMENT

METHOD OF COMPLIANCE	PRESCRIPTIVE
THERMAL ZONE	ZONE 5A
EXTERIOR DESIGN CONDITIONS	
HEATING DESIGN DRY BULB	7.4°F
COOLING DESIGN DRY BULB	83.9°F
COOLING DESIGN WET BULB	69.9°F
INTERIOR DESIGN CONDITIONS	
HEATING DESIGN DRY BULB	70°F
COOLING DESIGN DRY BULB	75°F
COOLING RELATIVE HUMIDITY	50%
HEATING LOAD:	215,804 BTU/H
SENSIBLE COOLING LOAD:	108,638 BTU/H
LATENT COOLING LOAD:	68,028 BTU/H
MECHANICAL SPACING CONDITIONING SYSTEM:	
UNITARY	AIR COOLED DX
DESCRIPTION OF UNIT(S)	2x 10-TON GAS RTU 1x 5-TON GAS RTU
BOILER	N/A
TOTAL BOILER OUTPUT	N/A
CHILLER	N/A
TOTAL CHILLER CAPACITY	N/A
EQUIPMENT EFFICIENCIES:	SEE SCHEDULES
EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS):	SEE SCHEDULES

DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE, THE MECHANICAL DESIGN FOR THIS BUILDING COMPLIES WITH MECHANICAL AND EQUIPMENT REQUIREMENTS OF THE 2020 NYMC.

MECHANICAL DESIGNER'S STATEMENT | 2

ROOFTOP PACKAGE GAS/ELECTRIC SCHEDULE

MARK	MFG / MODEL #	NOMINAL CAPACITY	AIR FLOW		COMPRESSORS	FAN MOTORS	HEATING CAPACITY				COOLING CAPACITY				IEER	ELECTRICAL			WEIGHT	REMARKS
			NOMINAL SUPPLY	MIN. OA		ESP	INPUT	OUTPUT	STAGES	AFUE	EAT WB/DB	TOTAL	SENSIBLE	LATENT		V/PH	MCA	MOCP		
		TONS	CFM	CFM	NO.	in wg	MBH	MBH	NO.	%	°F	MBH	MBH	MBH					LBS	
GP-1,2	LENNOX KGB150S4MH1Y	10.0	4000	SEE TABLE	2	.5	240	192	2	80.0	67/80	120	86.4	33.60	12.2	208/3	51	60	1726	1-13
GP-3	LENNOX KGB060S4BH1Y	5	2000	SEE TABLE	1	.5	150	120	1	80.0	67/80	63.1	49.2	13.90	11.8	208/3	26	35	712	1-13

1. PROVIDE COMPATIBLE ROOF CURB
2. PROVIDE DUCT DETECTOR IN RETURN DUCT. PROVIDE RELAY FOR KILLING POWER TO UNIT'S FAN.
3. PROVIDE WITH 0-100% ECONOMIZER WITH BAROMETRIC RELIEF
4. PROVIDE WITH COMPARATIVE ENTHALPY CONTROLS
5. PROVIDE HINGED ACCESS DOORS
6. PROVIDE HAIL GUARDS FOR COIL
7. PROVIDE OVER SIZED FAN MOTOR
8. REPLACE ALL FILTERS AT PROJECT'S COMPLETION
9. PROVIDE POWERED EXHAUST.
10. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH NIGHT-TIME SET BACK
11. ANY EQUIPMENT SUBSTITUTIONS MUST EQUAL OR EXCEED EFFICIENCIES LISTED (RATINGS PER ARI)
12. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES
13. PROVIDE WITH CONCENTRIC VENT KIT
14. GAS REGULATOR AND DIELECTRIC UNION IS REQUIRED AT EACH UNIT

(TS) THERMOSTAT LOCATION MOUNT AT 48" A.F.F.

(A/V) AUDIO VISUAL ANNUNCIATOR WITH RESET FOR DUCT DETECTOR, WALL MOUNT.

EXHAUST FAN SCHEDULE

MARK	MFG / MODEL #	TYPE	ESP (in WG)	CFM	VOLT/PH	FLA	SONES	NOTES
EF-1-3	GREENHECK SP-A-125	CEILING	.25	105	120/1	1	1.8	1-3

1. PROVIDE WITH PITCHED ROOF CAP OR HOODED WALL CAP AS APPLICABLE.
2. PROVIDE WITH SQUARE TO ROUND DUCT ADAPTER AS NECESSARY
3. OR EQUAL BY LOREN COOK OR PENNBARRY

MECHANICAL SCHEDULES | 3

Ventilation Calculation (For Unit GP-1&2)

Room Name(s)	Zone Type	Area (sq.ft.)	Rp	Ra	Default Occupancy	Pz	Ez	Airflow to Zone (cfm)
	Retail Sales	8812	7.5	0.12	15	132.18	0.8	8000
	N/A	0	0	0	0	0.00	0.8	0
	N/A	0	0	0	0	0.00	0.8	0
	N/A	0	0	0	0	0.00	0.8	0
	N/A	0	0	0	0	0.00	0.8	0

Maximum Zp: 0.320123

K-12 School? No **Ev:** 0.8

Actual System Population: 60

Uncorrected Intake 1507 cfm

Outdoor Air Intake *1884 cfm*

Percent of Unit Air 24%

Ventilation Calculation (For Unit GP-3)

Room Name(s)	Zone Type	Area (sq.ft.)	Rp	Ra	Default Occupancy	Pz	Ez	Airflow to Zone (cfm)
	Retail Sales	1299	7.5	0.12	15	19.49	0.8	2000
	N/A	0	0	0	0	0.00	0.8	0
	N/A	0	0	0	0	0.00	0.8	0
	N/A	0	0	0	0	0.00	0.8	0
	N/A	0	0	0	0	0.00	0.8	0

Maximum Zp: 0.188761

K-12 School? No **Ev:** 0.9

Actual System Population: 5

Uncorrected Intake 193 cfm

Outdoor Air Intake *215 cfm*

Percent of Unit Air 11%

VENTILATION CALCULATION- NO SCALE | 4

CONCENTRIC DIFFUSER

MECHANICAL UNIT DETAIL - NO SCALE | 5

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103909
6/29/23

DOLLAR GENERAL
STORE# 25355
7174 ALLEGHANY RD
BASOM, NY

REVISION:

NO.	DATE	DESCRIPTION
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ISSUED:

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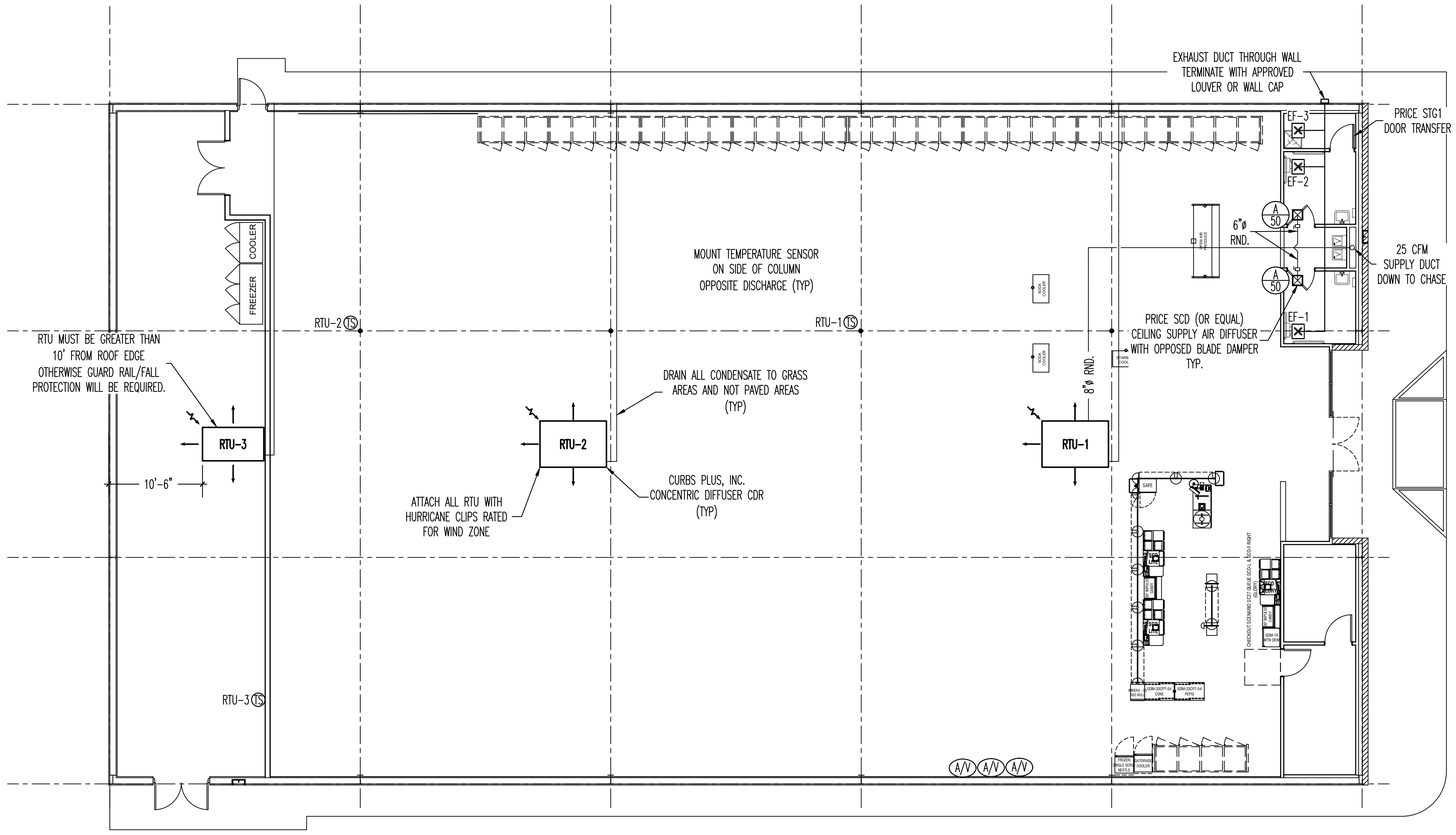
DRAWN BY: REW/TD
CHECKED BY: JAB/REW

MECHANICAL NOTES AND SCHEDULES

SHEET NO.
M0

PROJECT NO: 230338



MECHANICAL PLAN - SCALE: 1/8"=1' | 1

HVAC PROJECT NOTES

1. ALL MECHANICAL WORK SHALL BE DONE IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS AND ORDINANCES AND IN A MANNER SATISFACTORY TO THE AUTHORITY HAVING JURISDICTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS, INSPECTIONS AND PAY ALL APPLICABLE FEES.
2. DUCTWORK AND HVAC SYSTEMS ARE NOT DIMENSIONED. DO NOT SCALE FROM DRAWING(S.) MECHANICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND ENSURE THERE IS AVAILABLE SPACE FOR DUCTWORK BEFORE FABRICATION.
3. UNLESS OTHERWISE NOTED ON DRAWINGS, ANY REQUIRED DUCTWORK SHALL BE INSTALLED TIGHT TO STRUCTURE.
4. DESIGN ENGINEER TO INDICATE FIRE DAMPERS IN ALL RATED CONSTRUCTION ASSEMBLIES. COORDINATE PLACEMENT OF ALL FIRE DAMPERS WITH RATED ASSEMBLIES ON ARCHITECTURAL DRAWINGS.
5. COORDINATE ALL DIFFUSER, GRILLE & REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN.
6. NECK SIZE OF LAY-IN DIFFUSERS SHALL BE EQUAL IN DIAMETER TO DUCT RUNOUT.
7. THE MECHANICAL CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, SERVICES AND INCIDENTALS TO THE WORK INVOLVED FOR A COMPLETE AND OPERATING FACILITY.
8. ALL EQUIPMENT SHALL BE PROVIDED COMPLETE WITH ELECTRICAL STARTER, PROTECTIVE DEVICES AND INTERLOCKS, ECT. REQUIRED FOR COMPLETE OPERABLE SYSTEM.
9. ALL HVAC EQUIPMENT LOCATIONS SHALL BE COORDINATED TO ENSURE CLEAR ACCESS TO ALL AREAS. EQUIPMENT SHALL BE ORIENTED IN SUCH A MANNER AS TO ALLOW FOR FULL SERVICE/MAINTENANCE.
10. COLOR AND FINISH FOR ALL EXTERIOR LOUVER/WALL CAP SHALL BE COORDINATED WITH THE ARCHITECT/OWNER.
11. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR TEST, ADJUST AND BALANCE OF THE AIR DISTRIBUTION SYSTEM.
12. ALL SUPPLY AND RETURN DUCT SHALL BE CONNECTED TO THE HVAC UNIT WITH FLEXIBLE UL LISTED CANVAS.
13. DUCTWORK DIMENSIONS SHOWN ON MECHANICAL PLANS ARE NET CLEAR INSIDE DIMENSIONS.
14. OUTDOOR AIR INTAKE OPENINGS SHALL BE LOCATED IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE, SECTION 401.4.
15. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ASSEMBLING ANY EQUIPMENT SHIPPED IN SECTIONS, IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
16. UNITS GREATER THAN 2,000 CFM REQUIRE A DUCT MOUNTED SMOKE DETECTOR IN THE RETURN DUCT. UNITS BELOW 2,000 CFM ARE TO BE EQUIPPED WITH A FIRESTAT. LOCAL ORDINANCES MAY HAVE MORE STRINGENT REQUIREMENTS. COORDINATE WITH ELECTRICAL CONTRACTOR.
17. SEE ARCHITECTURAL PLANS FOR TYPE OF CONSTRUCTION, OCCUPANCY, AND THE INTENDED USE OF EACH SPACE.
18. SEE ARCHITECTURAL PLANS FOR 'R' VALUES OF CONSTRUCTION COMPONENTS (SUCH AS WALLS, FLOORS, CEILING & PERIMETER INSULATION.)
19. INSULATING MATERIALS SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX NOT EXCEEDING 450 IN ACCORDANCE WITH ASTM E 84.
20. ALL HVAC EQUIPMENT SHALL BE INSTALLED IN SUCH A WAY AS TO REDUCE VIBRATION TRANSMISSION TO STRUCTURAL MEMBERS.

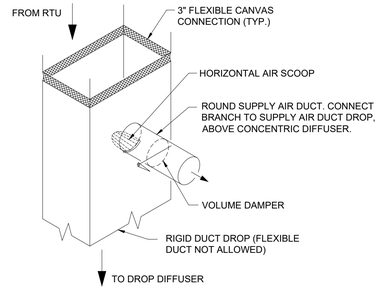
MECHANICAL PROJECT NOTES | 2

SYMBOL LEGEND	
	EXHAUST FAN
	SUPPLY AIR DIFFUSER
TS	TEMPERATURE SENSOR
	RETURN/EXHAUST AIRFLOW
	SUPPLY AIRFLOW
	VOLUME DAMPER
CD	CONDENSATE PIPE

HVAC SPECIFICATIONS:

1. SEE SHEET M0 FOR GENERAL MECHANICAL PROJECT NOTES
2. ROOF MOUNTED SYSTEM WITH ANY REQUIRED DUCTWORK, CONFORMING TO ASHRAE SPECIFICATIONS IN SALES FLOOR, OFFICES, REST ROOM, AND RECEIVING AREAS.
3. ANY DUCTWORK MUST BE INSTALLED ABOVE 11'-6" A.F.F. NO HVAC DUCT TRUNKLINE TO BE INSTALLED WITHIN 48" RADIUS OF REGISTER/ICE CREAM POWER POLES. REFER TO SHEET E1.1 FOR EXACT LOCATION OF POWER POLES.
4. FOR HVAC SENSOR LOCATIONS SEE EMS1 SHEET.
5. LENNOX, CARRIER OR YORK PACKAGED HVAC SYSTEMS ARE REQUIRED. SEE HEATING SOURCE REQUIREMENT BY REGION ON M0.
6. PROVIDE CEILING EXHAUST FANS FOR RESTROOMS, INTERLOCK WITH RESTROOM LIGHTS. VENT EXHAUST FANS THRU SIDE WALL, NOT THRU THE ROOF. INSTALL BACKDRAFT DAMPERS AT EACH FAN.
7. REFER TO S3 FOR ROOF CURB INFORMATION AND DESIGN INTENT.
8. CONCENTRIC DIFFUSERS, AVAILABLE THROUGH YORK, CAN BE USED ON ALL VENDOR'S EQUIPMENT. CONTACT YORK NATIONAL PRICING FOR INFORMATION. LOCATE THE BOTTOM OF DIFFUSER AT 12'-0" AFF.

MECHANICAL SPECIFICATIONS AND SCHEDULE | 3



NOTE:
INSTALL HORIZONTAL AIR SCOOP HAVING A CONTINUOUSLY CURVED CROSS SECTION AND BALANCING DAMPER AT DUCT CONNECTION TO DIVERT SUPPLY AIR INTO THE CONNECTED DUCTWORK. LENGTH OF SCOOP SHALL BE LIMITED TO THE WIDTH OF THE SUPPLY AIR ANNULAR SPACE.

HVAC DUCT DETAIL - NO SCALE | 4

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STATE OF NEW YORK
JACOB A. BENDER
103909
LICENSED PROFESSIONAL ENGINEER
6/12/23

DOLLAR GENERAL
STORE# 25355
7174 ALLEGHANY RD
BASOM, NY

REVISION:

DESCRIPTION	DATE

ISSUED:

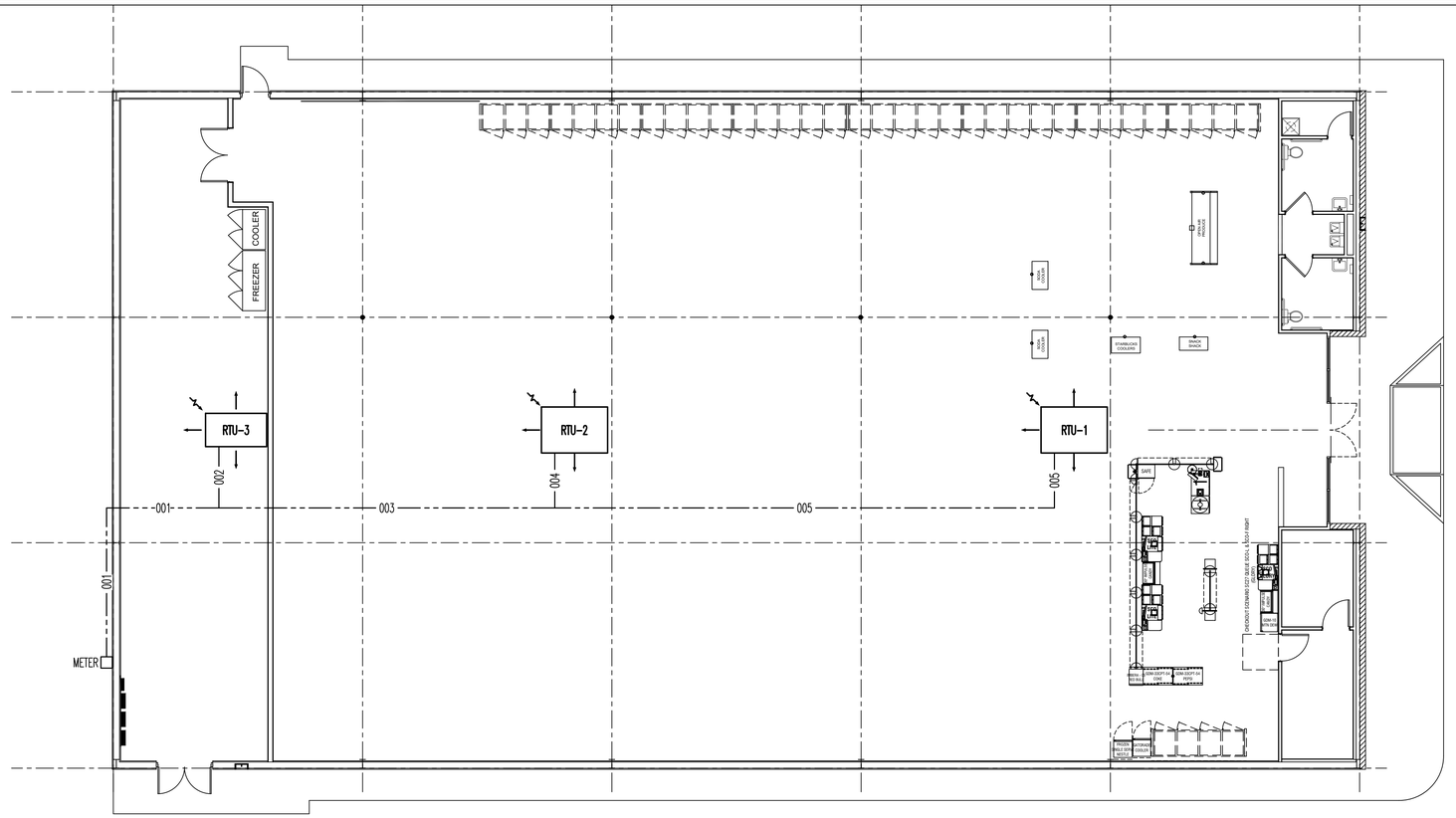
DESCRIPTION	DATE
FOR PERMITTING	06/29/2023

DRAWN BY: REW/TD
CHECKED BY: JAB/REW

MECHANICAL PLAN

SHEET NO.
M1

PROJECT NO: 230338



ROOF GAS PLAN - SCALE: 1/8"=1' | 1

GENERAL GAS LINE PIPING NOTES

1. THE GAS PIPING CONTRACTOR (GPC) SHALL PROVIDE ALL MATERIALS AND LABOR AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.
2. THE GPC SHALL INSTALL ALL MATERIALS AND EQUIPMENT IN ACCORDANCE WITH THE 2018 NORTH CAROLINA FUEL GAS CODE AND ANY APPLICABLE LOCAL CODES. WHERE A CONFLICT EXISTS BETWEEN THE ABOVE REQUIREMENTS, THE MORE STRINGENT SHALL BE USED. THE CONTRACTOR SHALL OBTAIN CLARIFICATION FROM THE ENGINEER IN THE EVENT ANY PART OF THESE PLANS CONFLICTS WITH THE ABOVE REQUIREMENTS.
3. THE GPC SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
4. DO NOT SCALE THESE DRAWINGS–REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
5. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS.
6. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
7. THE CONTRACTOR SHALL INSTALL HIGH PRESSURE REGULATORS AT EACH PIECE OF EQUIPMENT AS NECESSARY.
8. INSTALL A DRIP LEG IN GAS LINE AT EACH POINT WHERE CONDENSATE COULD COLLECT. ALL DRIP LEGS SHALL BE READILY ACCESSIBLE FOR CLEANING OR EMPTYING.
9. PIPING SHALL BE SCHEDULE 40 STEEL OR WROUGHT IRON AND COMPLY WITH ANSI/ASME B36.10, ASTM A 53, OR ASTM A 106.
10. ALL PIPES AND FITTINGS SHALL BE NEW, FREE OF DEFECTS, AND RATED FOR THE APPLICATION.
11. ALL PIPING SHALL BE INSTALLED SO AS NOT TO BE SUBJECT TO PHYSICAL DAMAGE.
12. PVC VENT PIPING SHALL NOT BE INSTALLED INDOORS.
13. THE TYPE OF PIPING JOINT USED SHALL BE SUITABLE FOR THE PRESSURE–TEMPERATURE CONDITIONS AND SHALL BE SELECTED CONSIDERING JOINT TIGHTNESS AND MECHANICAL STRENGTH UNDER THE SERVICE CONDITIONS.
14. PIPE JOINTS SHALL BE THREADED, FLANGED, BRAZED, OR WELDED.
15. FLEXIBILITY SHALL BE PROVIDED BY THE USE OF BENDS, LOOPS, OFFSETS, OR COUPLINGS OF THE SLIP TYPE. PROVISIONS SHALL BE MADE TO ABSORB THERMAL CHANGES BY THE USE OF EXPANSION JOINTS OF THE BELLOWS TYPE OR BY THE USE OF 'BALL' OR 'SWIVEL' JOINTS. DO NOT USE EXPANSION JOINTS OF THE SLIP TYPE INSIDE THE BUILDING. PIPE ALIGNMENT GUIDES SHALL BE USED WITH EXPANSION JOINTS PER THE MFG.
16. ALL GAS PIPING SHALL BE LABELED TO INDICATE THE PRESSURE.
17. PIPE HANGERS AND SUPPORTS SHALL CONFORM TO ANSI/MSS SP–58.
18. BENDS SHALL BE MADE ONLY WITH BENDING TOOLS AND PROCEDURES INTENDED FOR THAT PURPOSE. DO NOT BEND PIPE THROUGH AN ARC OF MORE THAN 90°. ALL BENDS SHALL BE SMOOTH AND FREE OF CRACKS, BUCKLING, OR OTHER EVIDENCE OF DAMAGE.
19. INSTALL GAS SHUTOFF VALVES UPSTREAM OF EACH GAS REGULATOR. VALVES SHALL BE READILY ACCESSIBLE AND NOT SUBJECT TO PHYSICAL DAMAGE.
20. WHERE A SEDIMENT TRAP IS NOT INCORPORATED AS PART OF THE APPLIANCE, A SEDIMENT TRAP SHALL BE INSTALLED DOWNSTREAM OF THE APPLIANCE SHUTOFF VALVE AS CLOSE TO THE INLET OF THE APPLIANCE AS PRACTICAL.
21. PRIOR TO ACCEPTANCE BY THE OWNER, ALL GAS PIPING INSTALLATIONS SHALL BE INSPECTED AND PRESSURE TESTED IN ACCORDANCE WITH SECTION 406 OF THE NC FUEL GAS CODE.

GAS NOTES | 2

Notes
1. S-5-U (HORIZONTAL)
2. S-5-U (VERTICAL)
3. M10-1.5 X 16MM HEX FLANGE BOLT
4. 3/8-24 X .8" ROUND POINT SETSCREW
5. EXAMPLE PROFILE

FOR STANDING SEAM SPECIFIC MECHANICAL LOAD TEST INFORMATION AND CLAMP INSTALLATION INFORMATION PLEASE VISIT: WWW.S-5.COM

MATERIAL: **6061 T6**

EST ASSEMBLY WEIGHT : **.4 LBS**

SUPPLIED HARDWARE:
M10-1.5 X 16MM (16MM HEX) 18/8 SS
3/8-24 X .800" 18/8 SS

SCALE: **1:0.75**

OTHER:

S-5! The Right Way!

METAL ROOF INNOVATIONS, LTD.
8655 TABLE BUTTE RD
COLORADO SPRINGS, CO 80908
719-495-0518
719-495-0045 (FAX)

TITLE S-5-U

DRAWING NO. U11-B-0-A CCD | DRAWN BY DMMH | DATE 05/15/2012

S-5!® PRODUCTS ARE PROTECTED BY MULTIPLE U.S. PATENTS INCLUDING 5,228,248, 5,983,588 AND 6,164,033 (OTHERS ISSUED AND PENDING). EUROPEAN PATENTS ARE ALSO APPLIED FOR AND PENDING UNDER THE PATENT COOPERATION TREATY WITH DIVISIONAL FILING RIGHTS RETAINED. METAL ROOF INNOVATIONS, LTD. (LICENSOR OF S-5!® TECHNOLOGY) AGGRESSIVELY PROSECUTES PATENT INFRINGEMENT.

ROOF CLAMP DETAIL - NO SCALE | 3

GAS PIPING REGULATOR DETAIL - NO SCALE | 4

GAS LINE SIZING VERIFICATION TABLE				
PER 2020 NY FUEL GAS CODE TABLE 402.4(5)				
SECTION	GAS LOAD	LINE SIZE	CAPACITY	PRESSURE
	MBTU/H	INCHES	CFH	IN PSI
001	630.0	3/4"	751.0	2
002	240.0	3/4"	751.0	2
003	390.0	3/4"	751.0	2
004	240.0	3/4"	751.0	2
005	150.0	3/4"	751.0	2

TOTAL DEVELOPED LENGTH LESS THAN 150'

GAS DELIVERY PLAN - NO SCALE | 5

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103909
6/29/23

DOLLAR GENERAL
STORE# 25355
7174 ALLEGHANY RD
BASOM, NY

REVISION:

NO.	DATE	DESCRIPTION

ISSUED:

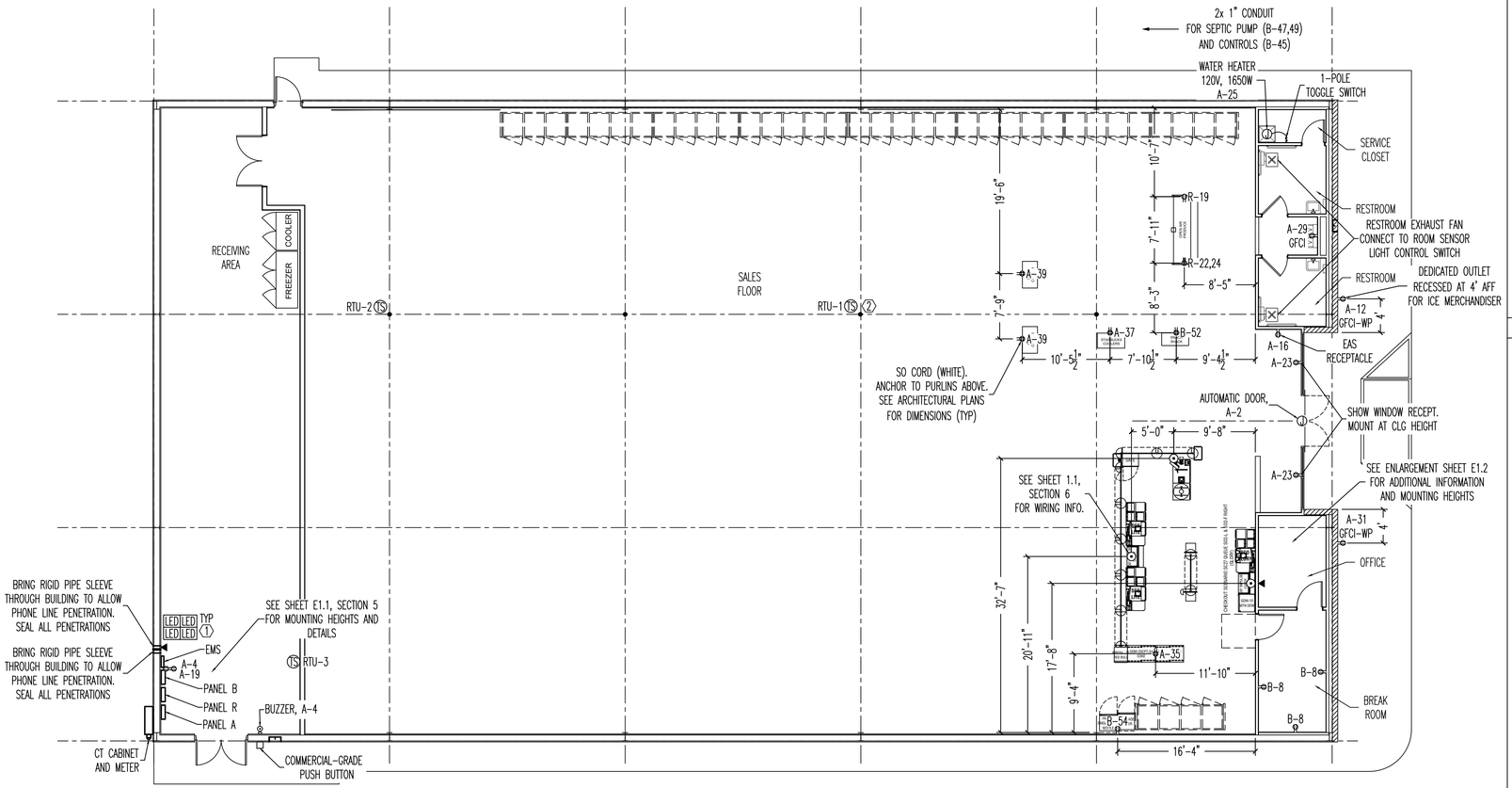
NO.	DATE	DESCRIPTION
1	06/29/2023	FOR PERMITTING

DRAWN BY: REW/TD
CHECKED BY: JAB/REW

GAS PLAN, DETAILS, AND RISER

SHEET NO.
M2

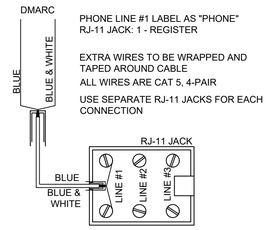
PROJECT NO: 230338



POWER PLAN - SCALE: 1/8"=1'-0" | 1

LEGEND	
SYMB	DESCRIPTION
	BUZZER - TORK MDL #TA725 W/ TRANSFORMER MDL#TA592
	COMMERCIAL GRADE PUSH BUTTON
A-23	125V NEMA 5-20R DUPLEX. PANEL/CIRCUIT IN PANEL
	125/250V NEMA L14-20-R 4 PRONG TWIST LOCK
	125V NEMA 5-20R QUAD
	DISCONNECT
	BLACK MAGIC POWER POLE
	PHONE JACK
	RJ-11, RJ-45 DATA JACK, PHONE COMBO
A-23	PANEL/CIRCUIT IN PANEL
S_m	PROVIDE OCCUPANCY LIGHT SENSOR- LEVITON ODS10-IDW
	20 AMP TOGGLE SWITCH
NL	NIGHT LIGHT CIRCUIT

ELECTRICAL LEGEND-NO SCALE | 2



PHONE WIRING SCHEMATIC - NO SCALE | 3

ELECTRICAL SPECIFICATIONS

A. ALL WIRING SHALL SHALL BE CONTAINED IN CONDUIT OF PROPER SIZE.

B. ALL WIRING SHALL CONFORM TO LOCAL, STATE AND FEDERAL CODES.

C. SERVICE IS TO BE A MINIMUM 400 AMP, 3 PHASE (PREFERRED), 600 AMP, 1 PHASE OR LARGER IF REQUIRED BY CODE OR ELECTRICAL LOAD.

D. REQUIRED CUSTOM BUILT POWER POLE ASSEMBLIES AVAILABLE FROM D&P CUSTOM LIGHTS & PRODUCTS INC., PHONE: (800) 251-2200 OR (615) 350-7800, 7111 COCKRILL BEND INDUSTRIAL ROAD, NASHVILLE, TN 37209. SEE E3.1.

E. EXTERIOR EXPOSED PHONE LINES TO BE INSTALLED IN RIGID CONDUIT. PROVIDE EMERSON 3/4" X 5-FT. METALLIC CABLE U-GUARD #755, OR EQUAL..

F. ELECTRICAL PANEL TO BE LABELED CORRECTLY WITH LEGIBLE PRINT.

G. LOW VOLTAGE VENDOR TO PROVIDE AND INSTALL ONE (1) 24 GA., 4 TWISTED-PAIR, CATEGORY-FIVE (CAT5) DATA CABLE WITH MODULAR COMBO RJ-11/RJ-45 JACK AT MANAGER'S OFFICE. CABLE TO BE RUN FROM JACK TO DATA HUB LOCATION WITH 6'-0" LEFT COILED FOR INSTALLATION TO DATA HUB. A RJ-45 MALE FITTING SHOULD BE CRIMPED ON THIS END. DOLLAR GENERAL STORE OPENING TEAM WILL MAKE FINAL CONNECTION INTO THE DATA HUB.

H. PROVIDE 1 1/2" EMT CONDUIT TO ACT AS ACCESS SLEEVE TO ALLOW PHONE COMPANY TO TERMINATE AT DMARC. CONTRACTOR TO PROVIDE AND INSTALL PHONE WIRING & RJ-11 PHONE JACK FOR COMPLETED WORKING SYSTEM PRIOR TO PHONE COMPANY FINAL HOOK UP.

I. ALL 120 VOLT OUTDOOR GFCI RECEPTACLES TO HAVE "WET LOCATION - IN USE" COVERS.

J. ALL CONDUCTORS TO BE COPPER, #12 AWG MINIMUM SIZE, OR AS REQUIRED BY LOAD AND OVER CURRENT PROTECTION.

K. SEE EMS SHEETS EMS1 FOR ENERGY MANAGEMENT SYMBOLS AND INFORMATION.

L. ELECTRICIAN TO PROVIDE 1 1/2" CONDUIT WITH PULL STRINGS FOR SATELLITE LOCATION.

M. ALL POWER AND DATA TO BE ROUTED OVERHEAD. UNDER SLAB NOT ALLOWED.

ELECTRICAL KEYED NOTES

1. TEST/RESET STATION FOR STAND ALONE DUCT DETECTOR. ONE FOR EACH DEVICE, SEE KEY NOTE 3 ON SHEET E1.3. SIMPLEX #4098-9842 IS SPECIFIED. WITH PIEZO AND LED INDICATOR LIGHT.
2. MECHANICAL THERMOSTAT MOUNTED ON COLUMN AT 8'-0" AFF. SURFACE MOUNT BOX AND CONDUIT. STUB CONDUIT AT STRUCTURE.

ELECTRICAL KEY NOTES AND SPECIFICATIONS - NO SCALE | 4

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STATE OF NEW YORK JACOB A. BENDER 103909 LICENSED PROFESSIONAL ENGINEER 8/24/23

DOLLAR GENERAL STORE# 25355
7174 ALLEGHANY RD
BASOM, NY

REVISION:

ISSUED:
08.29.2023 FOR PERMITTING

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ELECTRICAL POWER PLAN DETAILS, NOTES, AND SCHEDULES

SHEET NO.
E1.1

PROJECT NO: 230338

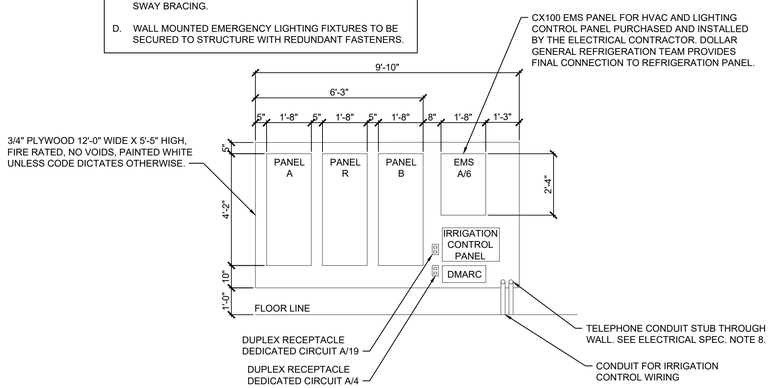
SEISMIC RESTRAINT NOTES

A. OVERHEAD CONDUITS 2.5 INCHES AND GREATER REQUIRE SEISMIC RESTRAINT.

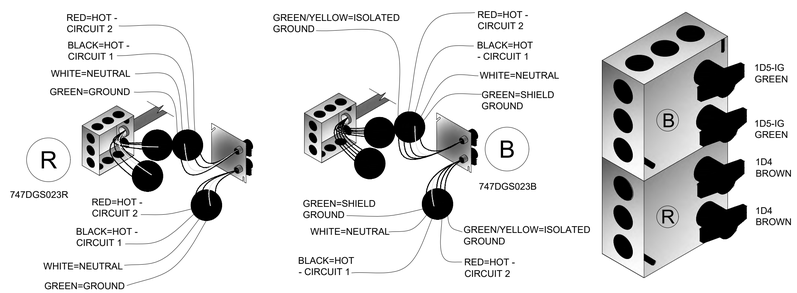
B. LIGHTING FIXTURE SUPPORTS SHOULD CONFORM TO UL 1570 OR 1571, IN ADDITION TO THE REQUIREMENTS OF FEMA 302 AND 303.

C. SUSPENDED TRANSFORMERS TO BE PROVIDED WITH SWAY BRACING.

D. WALL MOUNTED EMERGENCY LIGHTING FIXTURES TO BE SECURED TO STRUCTURE WITH REDUNDANT FASTENERS.



ELECTRICAL PANEL ELEVATION - NO SCALE | 5

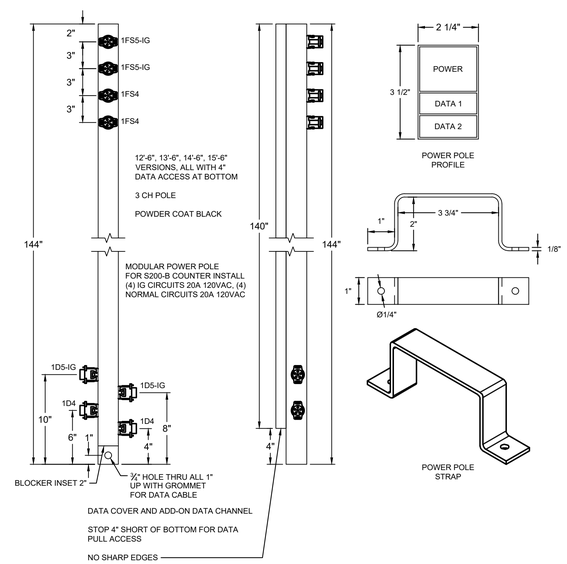


REGISTER ELECTRICAL COMPONENTS			
QTY	PART NUMBER	DESCRIPTION	VENDOR
1	747DGS023B	DUAL CIRCUIT POWER KIT WITH ISOLATED GROUND	D & P
1	747DGS023R	DUAL CIRCUIT POWER KIT	D & P
1	747DGS044-12BK	12' 2CH REGULAR POLE W/2-C & 1-D CONNECTOR DRW #2004-12	
1	747DGS032A	10' CABLE KIT (SET OF 4 WHIPS)	

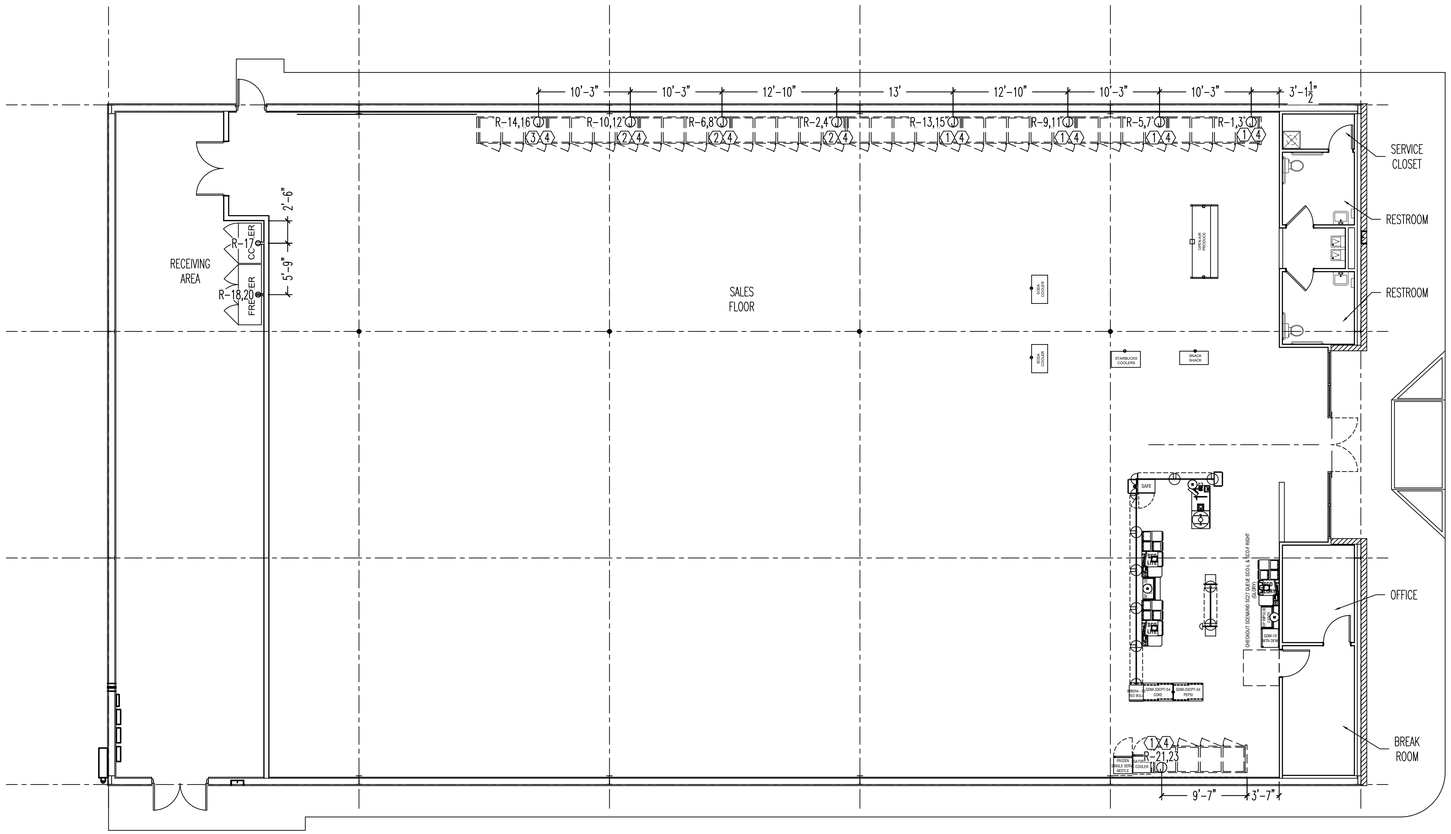
*NOTE: BEFORE ORDERING AND INSTALLATION OF ELECTRICAL COMPONENTS FOR REGISTERS, CONSULT FINAL FIXTURE PLAN FOR NUMBER AND LOCATION.

MAXIMUM CIRCUITS FOR REGISTERS:
- CIRCUITS AT MAIN REGISTER - (9) 110V
- CIRCUITS AT ISLAND REGISTER - (3) 110V

REGISTER ELECTRICAL DETAIL - NO SCALE | 6



REGISTER POWER POLE - NO SCALE | 7



REFRIGERATION POWER PLAN - SCALE: 1/8"=1'-0" | 1

LEGEND	
SYMB	DESCRIPTION
	BUZZER - TORK MDL #TA725 W/ TRANSFORMER MDL#TA592
	COMMERCIAL GRADE PUSH BUTTON
A-23	125V NEMA 5-20R DUPLEX. PANEL/CIRCUIT IN PANEL
	125/250V NEMA L14-20-R 4 PRONG TWIST LOCK
	125V NEMA 5-20R QUAD
	DISCONNECT
	BLACK MAGIC POWER POLE
	PHONE JACK
	RJ-11, RJ-45 DATA JACK, PHONE COMBO
A-23	PANEL/CIRCUIT IN PANEL
$ m	PROVIDE OCCUPANCY LIGHT SENSOR- LEVITON ODS10-IDW
	20 AMP TOGGLE SWITCH
NL	NIGHT LIGHT CIRCUIT

ELECTRICAL LEGEND - NO SCALE | 2

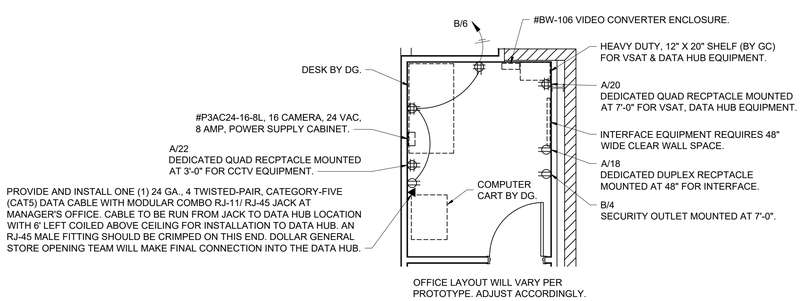
GENERAL NOTES

A. MOUNT ALL REFRIGERATOR OUTLETS AT 12" AFF.

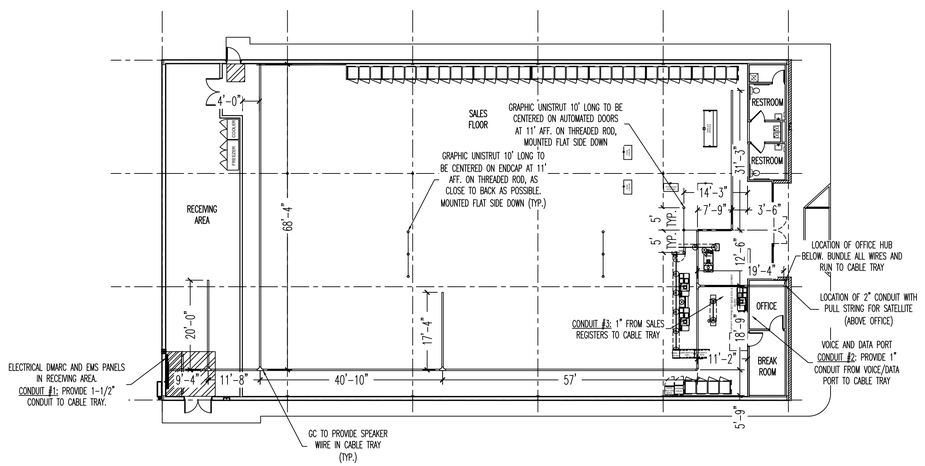
ELECTRICAL KEYED NOTES

1. PROVIDE 208V, 1 PHASE CONNECTION TO A J-BOX AT 90" AFF WITH (3)#12 CU. & #12 GROUND IN 3/4"C. R.C. TO PROVIDE AND INSTALL 30A/2NF DISCONNECT SWITCH AND WIRE FROM DISCONNECT SWITCH TO EQUIPMENT CONNECTIONS.
2. PROVIDE 208V, 1 PHASE CONNECTION TO A J-BOX AT 90" AFF WITH (3)#8 CU. & #10 GROUND IN 1"C. R.C. TO PROVIDE AND INSTALL 60A/2NF DISCONNECT SWITCH AND WIRE FROM DISCONNECT SWITCH TO EQUIPMENT CONNECTIONS.
3. PROVIDE 208V, 1 PHASE CONNECTION TO A J-BOX AT 90" AFF WITH (3)#10 CU. & #10 GROUND IN 3/4"C. R.C. TO PROVIDE AND INSTALL 30A/2NF DISCONNECT SWITCH AND WIRE FROM DISCONNECT SWITCH TO EQUIPMENT CONNECTIONS.
4. MOUNT J-BOX 11" FROM THE RIGHT SIDE OF EACH UNIT. CONFIRM EXACT LOCATION WITH REFRIGERATION VENDOR PRIOR TO WORK (TYP).

ELECTRICAL KEY NOTES AND SPECIFICATIONS - NO SCALE | 3



OFFICE ENLARGEMENT PLAN - SCALE: 1/8"=1'-0" | 4



CABLE TRAY PLAN AND CONDUIT DIAGRAM - SCALE: 1/16"=1'-0" | 5

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STATE OF NEW YORK
JACOB A. BENDER
103909
LICENSED PROFESSIONAL ENGINEER
6/12/23

DOLLAR GENERAL
STORE# 25355
7174 ALLEGHANY RD
BASOM, NY

REVISION:

ISSUED:
FOR PERMITTING
06/20/2023

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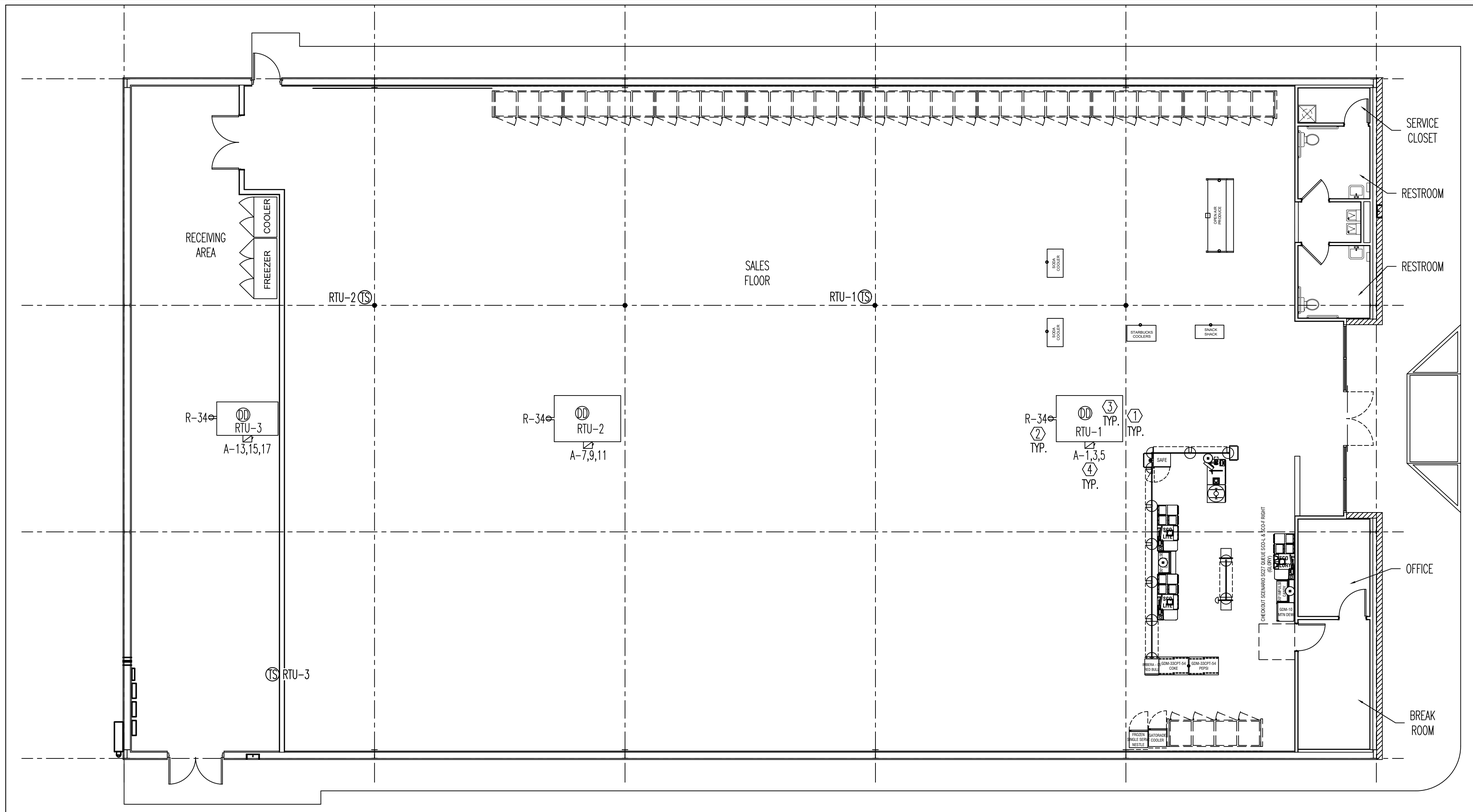
CHECKED BY: JAB/ REW

COOLER POWER LAYOUT AND CABLE TRAY PLAN AND DETAILS

SHEET NO.
E1.2

PROJECT NO: 230338



ROOF POWER PLAN - SCALE: 1/8"=1' | 1

LEGEND

SYMB	DESCRIPTION
	BUZZER - TORK MDL #TA725 W/ TRANSFORMER MDL#TA592
	COMMERCIAL GRADE PUSH BUTTON
A-23	125V NEMA 5-20R DUPLEX. PANEL/CIRCUIT IN PANEL
	125/250V NEMA L14-20-R 4 PRONG TWIST LOCK
	125V NEMA 5-20R QUAD
	DISCONNECT
	BLACK MAGIC POWER POLE
	PHONE JACK
	RJ-11, RJ-45 DATA JACK, PHONE COMBO
A-23	PANEL/CIRCUIT IN PANEL
$m	PROVIDE OCCUPANCY LIGHT SENSOR- LEVITON ODS10-IDW
	20 AMP TOGGLE SWITCH
NL	NIGHT LIGHT CIRCUIT

ELECTRICAL LEGEND-NO SCALE | 2

ELECTRICAL KEYED NOTES

1. LOCATIONS SHOWN FOR MECHANICAL UNITS ARE ONLY APPROXIMATE, CONTRACTOR MUST CONSULT MECHANICAL OR STRUCTURAL DRAWINGS TO DETERMINE ACTUAL UNIT LOCATIONS. PROVIDE 1/2"C. PENETRATION THRU ROOF WITHIN FOOTPRINT OF UNIT FOR USE WITH CONTROL WIRING TO UNIT BY OTHERS. PROVIDE PROPER WATERSEAL. (TYPICAL)
2. FACTORY MOUNTED POWERED CONVENIENCE OUTLET. FIELD VERIFY THAT OUTLET IS POWERED, WIRE ALL WITH THIS NOTE TO CIRCUIT R-34 IF THEY ARE NOT POWERED.
3. PHOTOELECTRIC DUCT DETECTOR WITH HOUSING. TIE TO LED READOUT. STAND ALONE DEVICE, 120V. SIMPLEX #4098-9687 IS SPECIFIED WITH 4098-9842 CONTROL STATION. PROVIDE ONE DEVICE PER UNIT. MOUNT DEVICE IN SUPPLY AIR DUCTWORK. DEVICE SHALL BE PROVIDED AND WIRED TO THE CONTROL STATION BY THE ELECTRICAL CONTRACTOR. HIRE THE MECHANICAL CONTRACTOR FOR INSTALLATION IN DUCTWORK & CONNECTION TO SHUTDOWN CONTROLS. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED RELAYS AND 120V POWER. DO NOT POWER DUCT DETECTORS FROM HVAC UNIT LOW VOLATGE. PLACE ANY REQUIRED LABELING ON CEILING TILE DIRECTLY BELOW UNIT. RUN CONDUIT & WIRE UNDERGROUND FROM UNIT TO INSIDE OF SPACE.
4. MOUNT DISCONNECT SWITCH AT UNIT AS DESCRIBED IN GENERAL NOTE 1 ON THIS SHEET.

ELECTRICAL KEY NOTES -NO SCALE | 3

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6/12/23

DOLLAR GENERAL
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REVISION:

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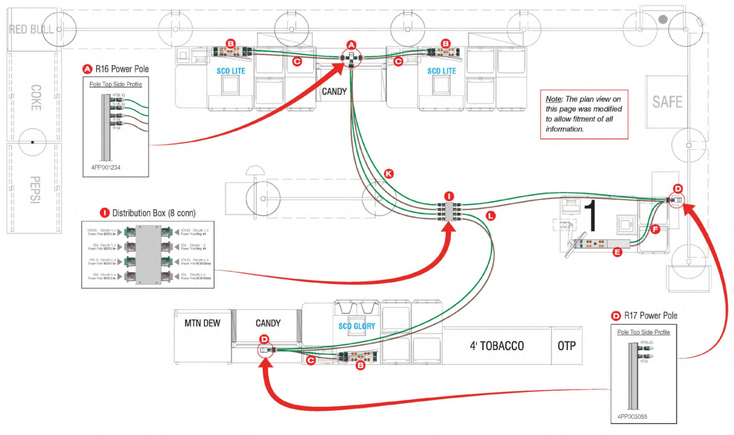
ROOF POWER PLAN AND DETAILS

SHEET NO.
E1.3

PROJECT NO: 230338

CHECKOUT SCENARIO SC27 QUEUE SCO RIGHT



	Description	QTY	Part #		Description	QTY	Part #
A	R16 Power Pole	1	747DGS044	F	E Cable Kit	1	747DGS068-C
B	SCO Power Box	3	747DGS059-SC-2357	I	Distribution Box (8 conn)	1	747DGS081
C	SCO Cable Kit	3	747DGS058-SC	K	R16 Cable Kit (set of 4)	1	747DGS032A
D	R17 Power Pole	2	747DGS080	L	R16-20 Cable Kit (set of 4)	1	747DGS032A-20
E	E Power Box	1	747DGS068-2600-E				

File: SCOFlowScenarios 2023

REGISTER WIRING DIAGRAM - NO SCALE | 4

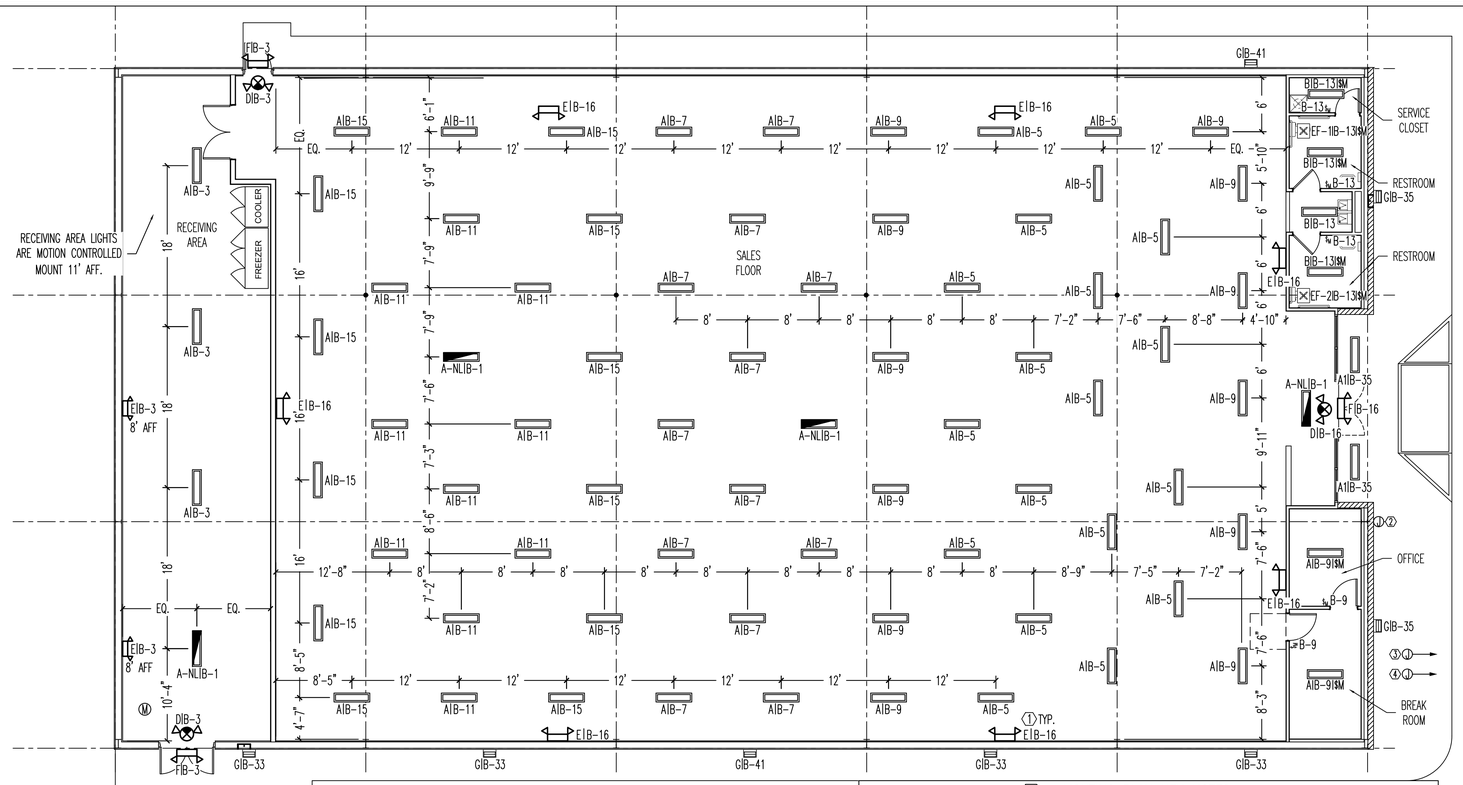
HVAC UNIT WIRING TABLE

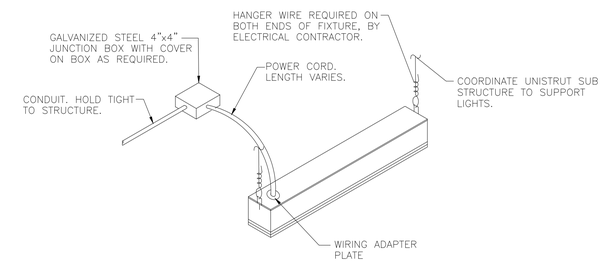
UNIT	WIRE	COND	DISC	FUSE	ENCL	PH	VOLT	GND	BRKR	LOAD	CFM	TONS
GP-1	#4	1 1/4"	60A-3P	60A	NEMA 3R	3ϕ	208	#8	60A-3P	18,351	4,000	10
GP-2	#4	1 1/4"	60A-3P	60A	NEMA 3R	3ϕ	208	#8	60A-3P	18,351	4,000	10
GP-3	#8	1"	60A-3P	35A	NEMA 3R	3ϕ	208	#10	35A-3P	9,360	2,000	5.0
EF-1	#12	3/4"	MOTOR RATED SWITCH		NEMA 1	1ϕ	120	#12	W/ LIGHTS	50	75	--
EF-2	#12	3/4"	MOTOR RATED SWITCH		NEMA 1	1ϕ	120	#12	20A-1P	50	75	--

TABLE NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL FIELD COORDINATE WITH THE MECHANICAL CONTRACTOR CONCERNING THE ELECTRICAL INFO OF ALL MECHANICAL DEVICES REQUIRING AN ELECTRICAL CONNECTION PRIOR TO DOING ANY WORK. ANY DISCREPANCIES BETWEEN THE FIELD OBTAINED INFORMATION AND THE INFORMATION SHOWN ON THE ELECTRICAL PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO DOING ANY WORK.
2. PROVIDE NEUTRALS ON AS REQUIRED BASIS, FIELD VERIFY.
3. ALL DISCONNECTS TO BE HEAVY DUTY. FUSES TO BE RK-5 TYPE, SUBMIT SHOP DRAWINGS. BUSSMAN FRN-R-(AMP) IS SPECIFIED.

HVAC UNIT WIRING TABLE - NO SCALE | 5





LIGHTING PLAN HEX NOTES

1. RECEIVING AREA LIGHTS MOUNTED 11'-0" AFF.
2. EMERGENCY/EXIT SIGNS AND LIGHT: MOUNT 11'-0" AFF. GRAPHIC PACKAGES TO BE KEPT CLEAR.
3. COORDINATE BUILDING SIGN SIZE WITH DOLLAR GENERAL SIGN DEPARTMENT BY EMAILING TO SIGNAGE@DOLLARGENERAL.COM WIRE ON CIRCUIT B-23. LOCATE BOX HIGH ON WALL 12' LEFT FROM CENTER OF BUILDING FOR 26' SIGNS AND 16' LEFT FROM CENTER OF BUILDING FOR 33' SIGNS. SEE ELEVATIONS.
4. 1" PVC SCH. 40 UNDERGROUND CIRCUITS TO SITE LIGHTING B-27,B-29.
5. PYLON SIGN, 1" PVC SCH 40 UNDERGROUND TO SIGN. B-25.

LIGHTING PLAN - SCALE: 1/8"=1' | 1

TYPICAL LED FIXTURE MOUNTING DETAIL - NO SCALE | 2

LIGHT FIXTURE SCHEDULE

SYMBOL	MARK	DESCRIPTION	LAMPS				VOLTAGE	INPUT WATTAGE	MOUNTING	QTY.	REMARKS	MFG	MODEL
			TYPE	WATTAGE	QTY.	CCT							
▭	A	4' LED STRIP INCLUDES (2) - 8 FT CABLES	LED	33	1	5000K	120	33	SUSPENDED	76		LEDS	ST5000
▭	A-NL	4' BBU COMPATIBLE LED FIXTURE	LED	33	1	5000K	120	33	SUSPENDED	4	1	ETI	54573161
▭	B	2' LED STRIP SURFACE MOUNT	LED	20	1	5000K	120	20	SURFACE	4		LEDS	ST2000
⊗	D	EMERGENCY LIGHT/EXIT COMBO 2 HEADS	LED	20	1	-	120	20	SUSPENDED	3	1	LEDS	EM2505
◁▭▷	E	LED EMERGENCY LIGHT 2 HEADS	LED	20	1	-	120	20	SUSPENDED	7	1	LEDS	EL2500
◁▭▷	F	EMERGENCY EGRESS LIGHT 2 HEADS	LED	20	1	-	120	20	SUSPENDED	3	1,2	LEDS	EL2502
▤	G	WALL PACK	LED	46	1	5000K	120	46	WALL	8	2-4	LEDS	WP4250

1. FIXTURES LABELED FOR EMERGENCY USE SHALL HAVE BATTERY FOR 90 MINUTE ILLUMINATION OF TWO (2) LAMPS
2. WET LOCATION LISTED
3. PHOTOCELL CONTROLLED
4. FULL CUT OFF

LIGHTING SCHEDULE - NO SCALE | 3

ELECTRICAL DESIGNER'S STATEMENT			
ELECTRICAL SYSTEM AND EQUIPMENT METHOD OF COMPLIANCE PRESCRIPTIVE _X_ PERFORMANCE ___ ENERGY COST BUDGET ___			
LIGHTING SCHEDULE:			
LAMP TYPE REQUIRED IN FIXTURE:	SEE LIGHTING LEGEND		
NUMBER OF LAMPS PER FIXTURE:	SEE LIGHTING LEGEND		
BALLAST TYPE USED IN FIXTURE:	SEE LIGHTING LEGEND		
NUMBER OF BALLASTS IN FIXTURE:	SEE LIGHTING LEGEND		
TOTAL WATTAGE PER FIXTURE:	SEE LIGHTING LEGEND		
TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED:		WATTS SPECIFIED	WATTS ALLOWED
		3088	11814
ALL EXTERIOR LUMINAIRES > 100W MUST HAVE A MINIMUM EFFICACY OF 60 LUMENS/WATT			
OCCUPANCY	AREA (FT²)	ALLOWANCE (W/FT²)	MAX WATTAGE ALLOWED
RETAIL	10740	1.10	11814
TOTAL	10740		11814
EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS) MOTOR HORSEPOWER: N/A NUMBER OF PHASES: BUILDING IS 208Y/120V, 3Ø, 4w MINIMUM EFFICIENCY: N/A MOTOR TYPE: N/A NUMBER OF POLES: N/A			
DESIGNER STATEMENT: TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH ASHRAE 90.1 2013.			

ELECTRICAL DESIGNER'S STATEMENT | 4

GENERAL ELECTRICAL NOTES:

ADMINISTRATIVE:

1. THE FOLLOWING ABBREVIATIONS SHALL APPLY TO NOTES AND PLANS: PC – PLUMBING CONTRACTOR, EC – ELECTRICAL CONTRACTOR, MC – MECHANICAL CONTRACTOR, GC – GENERAL CONTRACTOR, FASC – FIRE ALARM SYSTEM CONTRACTOR.
2. "PROVIDE" MEANS TO FURNISH AND INSTALL. THE ELECTRICAL CONTRACTOR SHALL ALSO INSTALL MATERIALS AND EQUIPMENT FURNISHED BY OTHERS AND THE GENERAL CONTRACTOR AS REQUIRED.
3. EC SHALL PROVIDE LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY AND REASONABLY INCIDENTAL TO INSURE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. MINOR ITEMS, ACCESSORIES, AND DEVICES REASONABLY INFERABLE AS NECESSARY FOR THE COMPLETION AND PROPER OPERATION OF ANY ELECTRICAL SYSTEM SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
4. WORKMANSHIP SHALL BE IN ACCORDANCE WITH NECA 1 "STANDARD PRACTICE FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING."
5. ALL MATERIALS AND EQUIPMENT SHALL BE DELIVERED TO THE SITE AND UNLOADED BY THE ELECTRICAL CONTRACTOR AT AN APPROVED LOCATION. THE ELECTRICAL CONTRACTOR SHALL PROTECT ALL MATERIALS AND EQUIPMENT FROM BREAKAGE, THEFT, AND THE ELEMENTS. ALL MATERIALS AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THE ELECTRICAL CONTRACTOR UNTIL THE PROJECT HAS BEEN COMPLETED AND TURNED OVER TO THE OWNER.
6. THE ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS NECESSARY FOR THE COMPLETION OF THE WORK UNDER THIS CONTRACT.
7. DO NOT SCALE THESE DRAWINGS–REFER TO ARCHITECTURAL SHEETS FOR DIMENSIONS.
8. TRADE NAMES AND MANUFACTURERS ARE SPECIFIED TO ESTABLISH A QUALITY STANDARD. SUBSTITUTIONS SHALL BE PERMITTED IF APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALL LISTED MODEL NUMBERS SHALL BE VERIFIED WITH THE MANUFACTURER FOR PROPER APPLICATION OF EQUIPMENT.
9. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL CONTACT THE ENGINEER TO RESOLVE ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THESE PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER TRADES PRIOR TO THE START OF CONSTRUCTION.
10. GROUNDING AND BONDING SHALL BE PER NEC ARTICLE 250. THE RACEWAY SYSTEM SHALL NOT BE RELIED UPON FOR GROUNDING CONTINUITY. A GREEN EQUIPMENT GROUNDING CONDUCTOR, SIZED PER NEC TABLE 250–122, SHALL BE RUN IN ALL POWER RACEWAYS. FOR NON–ISOLATED GROUND CIRCUITS PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CONDUIT RUN. FOR ISOLATED GROUND CIRCUITS, PROVIDE ONE NEUTRAL AND ONE ISOLATED GROUND WIRE FOR EACH CIRCUIT; IN ADDITION, PROVIDE ONE EQUIPMENT GROUNDING CONDUCTOR PER CONDUIT RUN. MAIN BONDING JUMPERS AND SYSTEM BONDING JUMPERS SHALL BE INSTALLED IN ACCORDANCE WITH 250.28 OF THE NEC. FOR BUILDINGS OR STRUCTURES SUPPLIED BY FEEDERS OR BRANCH CIRCUITS, GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH 250.32. SEPARATELY DERIVED AC SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH 250.30. RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS; ADDITIONAL GROUNDING ELECTRODES SHALL BE INSTALLED PER 250.56 AS NECESSARY.
11. THE ELECTRICAL CONTRACTOR SHALL ALSO COORDINATE WITH THE GENERAL CONTRACTOR REGARDING THE BONDING OF THE FOOTING REBAR, SO THAT IT WILL BE IN PLACE AND READY AT TIME OF FOOTING INSPECTION.
12. ALL MATERIALS AND EQUIPMENT SHALL COMPLY WITH THE UNDERWRITERS' LABORATORIES, INC. STANDARDS OR HAVE UL APPROVAL, OR BEAR UL RE–EXAMINATION LISTING WHERE SUCH APPROVAL HAS BEEN ESTABLISHED FOR THE TYPE OF DEVICE IN QUESTION.
13. CONDUCTORS, FUSES, CIRCUIT BREAKERS, AND DISCONNECT SWITCHES SHOWN ON THESE PLANS HAVE BEEN SIZED FOR THE SPECIFIED EQUIPMENT. BEFORE ORDERING ELECTRICAL EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ON THE SITE AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES SHOULD CONDUCTOR, CIRCUIT BREAKER, OR FUSE SIZES REQUIRE CHANGE.
14. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ENSURE THE FOLLOWING MATERIALS ARE RECYCLED DURING THE CONSTRUCTION PHASE OF THE PROJECT: LIGHT FIXTURES, INCLUDING PROPER DISPOSAL OF BALLASTS, FLUORESCENT LIGHT BULBS, AND TRANSFORMERS, WIRING AND ELECTRICAL EQUIPMENT, AND INSULATION. WASTE MATERIALS CONTAINING LEAD, ASBESTOS, PCBs (FLUORESCENT LAMP BALLASTS), OR OTHER HARMFUL SUBSTANCES SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL AND STATE LAWS AND REQUIREMENTS CONCERNING HAZARDOUS WASTE.
15. ALL WORK SHALL CONFORM TO 2020 NATIONAL ELECTRIC CODE, 2020 NEW YORK STATE BUILDING CODE, AND ALL APPLICABLE LOCAL CODES.

MATERIALS:

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, RECEPTACLES, TERMINALS, ETC, UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS AND CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SERVICE ENTRANCE EQUIPMENT, SUB PANELS, AND OTHER ELECTRICAL DISTRIBUTION EQUIPMENT AS NECESSARY FOR A COMPLETE INSTALLATION. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH UTILITY REGARDING SERVICE AND METERING DETAILS. PRIOR TO ORDERING EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL OBTAIN THE AVAILABLE FAULT CURRENT OR TRANSFORMER SIZE AND IMPEDANCE FROM THE UTILITY AND CONTACT THE ENGINEER IF THE VALUE EXCEEDS THE EQUIPMENT SPECIFIED. PANEL BOARDS AND SWITCH BOARDS SHALL BE SQUARE D, CUTLER–HAMMER, SIEMENS, OR GE. BUSES SHALL BE COPPER UNLESS OTHERWISE APPROVED BY THE ENGINEER. RECESSED PANEL BOARDS SHALL BE INSTALLED FLUSH WITH THE WALL FINISH. METER BASES SHALL COMPLY WITH THE UTILITY'S SPECIFICATIONS AND SHALL BE MOUNTED AT A HEIGHT APPROVED BY THE UTILITY. ALL EQUIPMENT IDENTIFIED FOR SERVICE ENTRANCE USE SHALL BE SO LABELED AND UL LISTED FOR SUCH USE. ELECTRICAL CONTRACTOR SHALL INSTALL ALL ELECTRICAL EQUIPMENT WITH CLEARANCES PER NEC 110.26. ELECTRICIAN SHALL PERMANENTLY LABEL EQUIPMENT PER NEC 110.24.
3. ENCLOSED SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE BY SQUARE D, EATON, OR GE. ENCLOSED SWITCHES SHALL HAVE A HANDLE LOCKABLE IN THE OFF POSITION AND SHALL HAVE A HANDLE INTERLOCKED TO PREVENT OPENING THE FRONT COVER WHILE IN THE ON POSITION. ENCLOSED SWITCHES OF THE FUSIBLE TYPE SHALL BE FUSED IN ACCORDANCE WITH NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES BY BUSSMAN, LITTELFUSE, OR MERSEN.
4. OCCUPANCY SENSORS SHALL BE BY WATTSTOPPER, LUTRON, LEVITON, SENSOR SWITCH, HUBBELL, OR APPROVED EQUAL.
5. CIRCUIT BREAKERS SHALL BE MOLDED–CASE, THERMAL MAGNETIC TYPE WITH QUICK–MAKE, QUICK–BREAK MECHANISM, COMMON TRIP ON MULTI–POLE BREAKERS, AND UL LISTED FOR BOTH COPPER AND ALUMINUM CONDUCTORS. CIRCUIT BREAKERS IN PANELS SHALL BE SERIES RATED WITH THE MAIN BREAKER, FULLY RATED FOR THE SYSTEM, OR SERIES RATED WITH THE BREAKER FEEDING THE PANEL FROM THE FACTORY.
6. ALL WIRE, CONNECTORS, TERMINALS, AND LUGS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. WHERE CONDUCTORS ARE RUN IN PARALLEL, LUGS SHALL BE LISTED FOR PARALLEL CONDUCTORS. PUSH WIRE CONNECTORS ARE NOT ALLOWED FOR BUILDING WIRE. PUSH CONNECTORS ARE ONLY ALLOWED, WHEN APPROVED, AS PART OF MANUFACTURED LISTED PRODUCTS. ALL WIRE SHALL BE INSTALLED IN CONDUIT UNLESS SPECIFICALLY NOTED OTHERWISE.
7. THE INSULATION TYPE FOR INTERIOR WIRING SHALL BE DUAL RATED THHN/THWN OR XHHW; ALL WIRING INSTALLED BELOW GRADE OR IN MOIST OR WET LOCATIONS SHALL HAVE TYPE THWN OR XHHW INSULATION. INSULATION VOLTAGE RATING SHALL BE 600 VOLTS AND A MINIMUM TEMPERATURE RATING OF 75°C. CONDUCTORS SHALL BE SOLID OR STRANDED COPPER FOR #10 AWG AND #12 AWG, AND STRANDED COPPER FOR #8 AWG AND LARGER SIZES. ALL WIRING AND CABLE SHALL BE UL LISTED. ALL TERMINATIONS AND DEVICES SHALL BE RATED FOR USE WITH 75°C CONDUCTORS. FINAL CONNECTIONS TO ALL MOTORS AND EQUIPMENT SUBJECT TO VIBRATION OR MOVEMENT SHALL BE MADE WITH STRANDED COPPER CONDUCTORS. CONDUCTORS SHALL BE BY CERRO WIRE, INC, INDUSTRIAL WIRE & CABLE, INC, ENCORE WIRE CORPORATION, OR SOUTHWIRE COMPANY.
8. JOINTS IN SOLID CONDUCTORS SHALL BE SPLICED USING IDEAL "WIRE NUTS", 3M "SCOTCH LOCK", OR T&B "PIGGY" CONNECTORS IN JUNCTION BOXES, OUTLET BOXES, AND LIGHTING FIXTURES. JOINTS IN STRANDED CONDUCTORS SHALL BE SPLICED BY APPROVED MECHANICAL CONNECTORS AND GUM RUBBER TAPE OR FRICTION TAPE. SOLDERLESS MECHANICAL CONNECTORS FOR SPLICES AND TAPS, PROVIDED WITH UL APPROVED INSULATING COVERS, MAY BE USED INSTEAD OF MECHANICAL CONNECTORS PLUS TAPE. IN ALL CASES, CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND NO SPLICING SHALL BE MADE EXCEPT WITHIN OUTLET OR JUNCTION BOXES, TROUGHS, OR GUTTERS. WHERE CONCENTRIC, ECCENTRIC, OR OVERSIZED KNOCKOUTS ARE ENCOUNTERED, A GROUNDING TYPE INSULATED BUSHING SHALL BE PROVIDED.
9. ALL LUMINAIRES SHALL BE LISTED. LUMINAIRES IN WET OR DAMP LOCATIONS SHALL BE MARKED AS SUITABLE FOR THE RESPECTIVE USE. EMERGENCY LIGHTING SHALL BE INSTALLED AS SHOWN. FINAL LOCATIONS OF ALL EXIT AND EMERGENCY LIGHTS SHALL BE VERIFIED WITH THE BUILDING INSPECTOR PRIOR TO INSTALLATION. ALL FLUORESCENT FIXTURES SHALL HAVE ELECTRONIC BALLASTS MEETING ANSI C82.11 FOR ELECTRONIC BALLAST PERFORMANCE. ALL BALLASTS SHALL BE UL LISTED AND MEET FEDERAL AND STATE EFFICIENCY REQUIREMENTS.
10. ALL CONDUIT, FITTINGS, COUPLINGS, AND SUPPORTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CONDUIT FITTINGS AND COUPLINGS SHALL BE BY APPLETON, RACO, OR O–Z/GEDNEY. COUPLINGS SHALL BE THREADED, SET–SCREW/TD, OR COMPRESSION TYPE. INDENTER OR CRIMP TYPE ARE NOT PERMITTED. CONDUIT FITTINGS AT ALL ELECTRICAL BOXES INCLUDING PULL, JUNCTION, AND OUTLET BOXES, SHALL HAVE INSULATED THROATS TO PREVENT INSULATION SCORING. DIE CAST FITTINGS ARE NOT PERMITTED
11. EMT SHALL BE MANUFACTURED IN ACCORDANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE–AMERICAN NATIONAL STANDARD FOR STEEL ELECTRICAL METALLIC TUBING (EMT), ANSI C80.3 AND UL 797. RIGID METAL CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI–AMERICAN NATIONAL STANDARD FOR ELECTRICAL RIGID STEEL CONDUIT (ERSC), ANSI C80.1 AND UL 6. INTERMEDIATE METAL CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI–AMERICAN NATIONAL STANDARD FOR INTERMEDIATE METAL CONDUIT ANSI C80.6 AND UL 1242.
12. METAL CONDUIT SHALL BE BY ALLIED TUBING & CONDUIT, BECK MANUFACTURING, INC, OR WHEATLAND TUBE COMPANY. FLEXIBLE METAL CONDUIT, LIQUID–TIGHT FLEXIBLE METAL CONDUIT, AND NONMETALLIC CONDUIT SHALL BE BY AFC CABLE SYSTEMS, INC, ELECTRI–FLEX COMPANY, OR INTERNATIONAL METAL HOSE.

METHODS:

1. EC SHALL REVIEW THE MECHANICAL PLANS TO ESTABLISH POINTS OF CONNECTION AND THE EXTENT OF THE ELECTRICAL WORK TO BE PROVIDED IN THE CONTRACT.
2. ALL CIRCUIT BREAKERS FEEDING HVAC EQUIPMENT SHALL BE HACR BREAKERS. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE MINIMUM #12 AWG IN 3/4 in CONDUIT. EACH MULTI–WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE SOURCE PER NEC 210.4(B). GROUP ALL CONDUCTORS OF EACH MULTI–WIRE BRANCH CIRCUIT PER 210.4(D) WITH WIRE TIES OR SIMILAR MEANS. DO NOT EXCEED THREE HOMERUNS PER CONDUIT. DO NOT INSTALL ISOLATED GROUND AND NON–ISOLATED GROUND CIRCUITS IN THE SAME CONDUIT. INSTALL CONDUCTORS OF DIFFERENT VOLTAGES IN SEPARATE CONDUITS.
3. COLOR CODE CONDUCTORS PER NEC. FEEDERS SHALL BE IDENTIFIED IN ACCORDANCE WITH NEC 215.12. USE BLACK, RED, AND BLUE FOR PHASES A, B, AND C RESPECTIVELY ON 208Y/120 VOLT THREE–PHASE Y SYSTEMS AND WHITE FOR THE NEUTRAL. ISOLATED GROUND WIRES SHALL BE GREEN WITH YELLOW BANDS OR STRIPES. THIS IDENTIFICATION SHALL BE MADE AT EACH POINT WHERE A CONNECTION IS MADE. COLORS SHALL BE FACTORY APPLIED FOR CONDUCTORS #6 AWG AND SMALLER. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN IN COLOR AND MINIMUM #12 AWG. THE EC SHALL PROVIDE PLENUM RATED CABLE FOR ANY ELECTRICAL, TELEPHONE, COMMUNICATION, OR OTHER CABLE THAT ENTERS CEILING RETURN PLENUMS.
4. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING. COORDINATE LIGHTING LAYOUT WITH CEILING GRID, MECHANICAL EQUIPMENT, DUCTWORK AND SPRINKLER HEADS AS NECESSARY. SEE REFLECTED CEILING PLAN FOR DETAILS. FLUORESCENT FIXTURES UTILIZING DOUBLE–ENDED LAMPS MUST HAVE A DISCONNECTING MEANS COMPLYING WITH NEC 410.130(G).
5. MOUNT LIGHT SWITCHES AT 48 in AFF. MULTIPLE SWITCHES AT SAME LOCATION SHALL BE UNDER ONE WALL PLATE. VERIFY WALL PLATE COLOR AND MATERIAL WITH THE ARCHITECT/OWNER. INSTALL SWITCHES WITH off POSITION DOWN. ALL SWITCHES SHALL BE HEAVY DUTY, IVORY PLASTIC WITH TOGGLE HANDLE, RATED 120–277V AC, AND COMPLYING WITH NEMA WD 6 AND WD 1. SWITCHES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SEYMOUR, OR HUBBELL. PROVIDE BOX DEVICE PARTITION/DIVIDERS FOR MULTI–GANG BOXES FOR COMPLIANCE WITH NEC 404.8(B).
6. ELECTRICAL CONTRACTOR SHALL PROVIDE FIRE–STOPPING AT ALL ELECTRICAL PENETRATIONS OF RATED FLOORS AND WALLS TO PRESERVE OR RESTORE THE FIRE–RESISTANCE RATING. SEAL PENETRATIONS USING A UL LISTED SYSTEM FOUND IN THE UL DIRECTORY SPECIFIC TO THE UL LISTING OF THE ASSEMBLY BEING PENETRATED. SEE ARCHITECTURAL PLANS FOR UL RATED ASSEMBLIES SPECIFIC TO THIS PROJECT.
7. ELECTRICAL CONTRACTOR SHALL PROVIDE GFCI RECEPTACLES IN KITCHENS, RESTROOMS, OUTDOORS, AND IN SHOP AREAS AS REQUIRED BY NEC. REFRIGERATORS AND WATER COOLERS MUST HAVE A DEDICATED GFCI BREAKER. EACH OUTDOOR HVAC UNIT MUST HAVE A GFCI RECEPTACLE WITHIN 25 FEET FOR SERVICING. GFCI RECEPTACLES SHALL CONFORM TO UL 943 CLASS A AND UL 498 STANDARDS. SHOW WINDOW RECEPTACLES SHALL BE PROVIDED IN ACCORDANCE WITH 210.62 OF THE NEC. RECEPTACLES SHALL BE BY COOPER WIRING DEVICES, LEVITON MANUFACTURING, PASS & SEYMOUR, OR HUBBELL. ALL RECEPTACLES SHALL BE 125V RATED, HEAVY DUTY, AND COMPLY WITH NEMA WD 6 AND WD 1.
8. LOCATIONS AND HEIGHTS OF ALL WALL–MOUNTED DEVICES SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION.
9. CONCEAL ALL CONDUIT EXCEPT IN MECHANICAL ROOMS OR UNFINISHED AREAS AS NOTED. USE EMT CONDUIT FOR ALL BRANCH CIRCUITS AND FEEDERS INSIDE THE BUILDING. TYPE MC CABLE AND TYPE AC CABLE MAY BE INSTALLED WITHIN WALLS IF ALL NEUTRAL WIRES, ISOLATED GROUND WIRES, AND EQUIPMENT GROUND WIRES AS LISTED ABOVE ARE CONTAINED IN THE CABLE. FLEXIBLE CONNECTIONS TO MOTORS AND OTHER EQUIPMENT SHALL BE MADE USING WEATHERPROOF FLEXIBLE CONDUIT. FOR LAY–IN LIGHT FIXTURES, USE MAXIMUM OF SIX (6) FEET OF FLEXIBLE MC CABLE (OR THE FLEXIBLE CONDUIT PROVIDED BY THE FIXTURE MANUFACTURER). SCHEDULE 40 PVC CONDUIT MAY BE USED FOR THE SECONDARY UNDERGROUND SERVICE, UNDERGROUND TELEPHONE SERVICE, AND BRANCH AND FEEDER CIRCUITS UNDER SLAB OR EXTERIOR TO THE BUILDING. EXPOSED EXTERIOR CONDUIT SHALL BE SCHEDULE 80 PVC. ALL UNDERGROUND RACEWAYS SHALL BE IDENTIFIED WITH UNDERGROUND LINE MARKING TAPE 6–8 in BELOW GRADE DIRECTLY ABOVE THE RACEWAY. PROVIDE PULL WIRE IN EMPTY CONDUITS. UPSIZE CONDUIT FROM MINIMUM SIZE AS NECESSARY FOR LONGER PULLS. UNDERGROUND RACEWAYS THAT STUB INTO THE BOTTOM OF SWITCHBOARDS, OUTDOOR TRANSFORMERS, GENERATORS, ETC., SHALL RISE AT LEAST 2 in ABOVE THE FINISHED SLAB TO PREVENT WATER FROM DRAINING INTO THE RACEWAYS. RACEWAYS THAT PENETRATE EXTERIOR WALLS OR INTERIOR PARTITIONS SEPARATING SPACES THAT WILL BE AT SIGNIFICANTLY DIFFERENT TEMPERATURES SHALL BE SEALED IN ACCORDANCE WITH 300.5(G), 300.7(A), AND 300.50(E) OF THE NEC. ROUTE CONDUIT IN AND UNDER SLAB FROM POINT–TO–POINT. ROUTE EXPOSED CONDUIT AND CONDUIT INSTALLED ABOVE ACCESSIBLE CEILINGS PARALLEL AND PERPENDICULAR TO WALLS. COMPLETELY AND THOROUGHLY SWAB ALL RACEWAYS BEFORE INSTALLING WIRE. PULL ALL CONDUCTORS INTO EACH RACEWAY AT ONE TIME. USE A SUITABLE WIRE PULLING LUBRICANT FOR BUILDING WIRE #4 AWG AND LARGER.
10. CABLES, RACEWAYS, OR BOXES, INSTALLED IN EXPOSED OR CONCEALED LOCATIONS UNDER METAL–CORRUGATED SHEET ROOF DECKING, SHALL BE INSTALLED AND SUPPORTED SO THERE IS NOT LESS THAN 1–1/2 in MEASURED FROM THE LOWEST SURFACE OF THE ROOF DECKING TO THE TOP OF THE CABLE, RACEWAY, OR BOX. A CABLE, RACEWAY, OR BOX SHALL NOT BE INSTALLED IN CONCEALED LOCATIONS IN METAL–CORRUGATED, SHEET DECKING–TYPE ROOF. SEE NEC 300.4(E).
11. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL OUTLET, JUNCTION, PULL BOXES, FITTINGS, AND SUPPORTS. ALL OUTLET AND JUNCTION BOXES SHALL BE GALVANIZED STEEL TYPE BY APPLETON, STEEL CITY, OR RACO. EXTERIOR BOXES SHALL BE TYPE FS. VAPORTITE BOXES SHALL BE TYPE GS. WHERE SURFACE MOUNTED BOXES ARE USED, THOSE BOXES AND THEIR FACEPLATES SHALL HAVE ROUNDED CORNERS. BOXES INSTALLED IN FLOORS SHALL BE RATED FOR THE APPLICATION. MOUNT JUNCTION AND OUTLET BOXES FLUSH WITH FINISH SURFACES UNLESS OTHERWISE NOTED. WHERE MOUNTING HEIGHTS ARE GIVEN, THEY SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTER OF THE BOX. ALL BOXES SHALL BE SIZED PER NEC ARTICLE 314. ALL OUTLET AND JUNCTION BOXES SHALL HAVE A COVER PLATE, PROVIDED BY THE ELECTRICAL CONTRACTOR. OUTLET BOXES IN RATED WALLS SHALL BE INSTALLED IN ACCORDANCE WITH NEW YORK BUILDING CODE 712.3.2 (MAXIMUM BOX SIZE IS 16 SQUARE in AND MAXIMUM OF SIX (6) BOXES PER 100 SQUARE FEET). INSTALL OUTLET BOXES IN RATED WALLS SUCH THAT OPENINGS OCCUR IN ONE SIDE ONLY WITHIN ANY GIVEN STUD SPACE. ALL CLEARANCES BETWEEN THE OUTLET BOX AND THE GYPSUM BOARD SHALL BE FILLED WITH JOINT COMPOUND OR OTHER APPROVED FIRE STOP MATERIAL. FLUSH MOUNTED JUNCTION BOXES IN ADJACENT ROOMS SHALL NOT BE MOUNTED BACK–TO–BACK. SURFACE MOUNTED FIXTURES SHALL BE FED THROUGH FLUSH MOUNTED 4X4 OCTAGONAL OR SQUARE BOXES.
12. ALL CONDUIT, BOXES, AND ELECTRICAL EQUIPMENT SHALL BE FIRMLY AND SECURELY FASTENED TO OR SUPPORTED FROM THE BUILDING STRUCTURAL MEMBERS OR EMBEDDED IN CONCRETE OR MASONRY. ELECTRICAL SUPPORTS SHALL NOT BE ATTACHED TO DUCTWORK, PIPING, OR THEIR SUPPORTS. HANGERS SHALL BE CATALOG ITEMS COMPATIBLE WITH AND SUITABLE FOR THE INTENDED USE. FOR METAL ROOF DECK INSTALLATIONS, 1 in EMT CONDUIT MAXIMUM AND 4 in JUNCTION BOXES MAXIMUM MAY BE SUPPORTED BY DECKING. THE SUSPENDED CEILING SYSTEM SHALL NOT BE USED FOR THE SUPPORT OF ELECTRICAL RACEWAY SYSTEMS OR SUPPORT OF COMMUNICATIONS OR DATA SYSTEMS WIRING. CONTRACTOR SHALL COMPLY WITH 1613 OF THE NEW YORK GENERAL CONSTRUCTION BUILDING CODE.
13. WHERE CONDUCTORS ARE RUN IN PARALLEL, THE EC SHALL COMPLY WITH NEC 310.4.
14. PROVIDE AN UNDERGROUND PVC CONDUIT SYSTEM FOR TELEPHONE SERVICE WITH PULL WIRES. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TELEPHONE UTILITY REGARDING ADDITIONAL FACILITIES REQUIRED FOR THE SERVICE INSTALLATION.
15. INSTALL ONE (1) 3/4 in FIRE RETARDANT TREATED PLYWOOD BACKBOARD WHERE INDICATED ON THE DRAWINGS FOR THE USE BY THE TELEPHONE SYSTEM. PROVIDE A 120 VOLT RECEPTACLE ADJACENT TO THE TELEPHONE BOARD. GROUND ALL TELEPHONE AND COMMUNICATIONS CIRCUITS PER NEC 800.
16. ALL TELEPHONE AND COMMUNICATIONS OUTLETS AND RACEWAYS ARE ROUGH–INS ONLY. EACH TELEPHONE AND COMMUNICATIONS OUTLET SHALL BE A 4 in SQUARE BY 2–1/8 in DEEP BOX WITH 3/4 in KNOCK–OUTS AND A 3/4 in CONDUIT STUBBED FROM THE OUTLET BOX TO ABOVE THE CEILING. PROVIDE A NON–METALLIC INSULATING BUSHING ON ALL CONDUITS STUBBED ABOVE THE CEILING. PROVIDE A BLANK COVER PLATE ON ALL OUTLET BOXES.
17. ELECTRICAL CONTRACTOR SHALL INSTALL DISCONNECT SWITCHES IN SIGHT OF ALL HARDWIRED EQUIPMENT AND APPLIANCES OR PROVIDE BREAKERS CAPABLE OF BEING LOCKED IN THE OPEN POSITION PER NEC 422.31. FOR MOTOR DRIVEN APPLIANCES, PROVIDE A DISCONNECTING MEANS PER NEC 422.31 AND 430 PART IX. WHERE AN INDIVIDUAL DISCONNECT SWITCH, CIRCUIT BREAKER, STARTER, ETC, IS SHOWN ON THE PLANS ADJACENT TO ITS LOAD AND NOT LOCATED ON A WALL, PROVIDE NECESSARY MATERIALS AND LABOR TO SUPPORT THE DEVICE.
18. ELECTRICAL CONTRACTOR SHALL FIELD IDENTIFY ALL SWITCH BOARD, PANEL BOARDS, CONTROL PANELS, METER SOCKETS, ETC., TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRICAL ARC FLASH HAZARDS PER 110.16 OF NEC.
19. ELECTRICAL CONTRACTOR SHALL PROVIDE NAMEPLATES FOR IDENTIFICATION OF ALL EQUIPMENT, SWITCHES, PANELS, ETC. THE NAMEPLATES SHALL BE LAMINATED PHENOLIC PLASTIC, BLACK FRONT, AND BACK WITH WHITE CORE, WHITE ENGRAVED LETTERS (1/4 in MINIMUM) ETCHED INTO THE WHITE CORE. ELECTRICAL CONTRACTOR SHALL PROVIDE A TYPE WRITTEN DIRECTORY CARD THAT ACCURATELY IDENTIFIES CIRCUITS INSIDE EACH PANEL. HANDWRITTEN LABELS ARE NOT ACCEPTABLE.

GENERAL ELECTRICAL NOTES - NO SCALE | 5

ANSI A117.1 FIG. 308.3.2. OBSTRUCTED HIGH REACH SIDE.
ALL SWITCHES AND CONTROLS MUST COMPLY FOR ALL COUNTERTOPS

ANSI A117.1 HIGH SIDE REACH DETAIL-NO SCALE | 6

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103909
6/29/23

DOLLAR GENERAL
STORE# 25355

7174 ALLEGHANY RD
BASOM, NY

REVISION:

NO.	DATE	DESCRIPTION

ISSUED:

NO.	DATE	DESCRIPTION
1	06/29/2023	FOR PERMITTING

DRAWN BY: REW/TD
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LIGHTING PLAN AND DETAILS

SHEET NO.
E2

PROJECT NO: 230338

PANEL A

CKT	LOAD	BKR	LOAD kVA	PH	LOAD kVA	BKR	LOAD	CKT
1	GP-1	60/3	6.12	A	0.10	20/1	AUTOMATIC DOOR	2
3			6.12	B	0.36	20/1	TELEPHONE BOARD/BUZZER	4
5			6.12	C	0.18	20/1	EMERGENCY MANAGEMENT	6
7	GP-2	60/3	6.12	A	0.18	20/1	OUTDOOR HVAC RECEPT.	8
9			6.12	B	0.00	20/1	SPARE	10
11			6.12	C	0.00	20/1	SPARE	12
13	GP-3	35/3	3.12	A	0.00	20/1	SPARE	14
15			3.12	B	1.70	20/1	EAS RECEPT.	16
17			3.12	C	0.50	20/1	INTERFACE EQUIP.	18
19	IRRIGATION CONTROL PANEL RECEPT.	20/1	0.18	A	0.50	20/1	VSAT. DATA HUB EQUIPMENT	20
21	HOT BOX CIRCUIT*	20/1	0.50	B	0.96	20/1	CCTV EQUIP.	22
23	SHOW WINDOW	20/1	0.36	C	0.92	20/1	CLICK AND COLLECT FREEZER/COOLER	24
25	WATER HEATER	20/1	1.65	A	0.00	20/1	SPARE	26
27	SPARE	20/1	0.00	B	0.00	20/1	SPARE	28
29	DRINKING FOUNTAIN-GFCI BREAKER	20/1	0.50	C	0.00	20/1	SPARE	30
31	OUTDOOR ICE MERCHANDISER	20/1	1.20	A	0.00	20/1	SPARE	32
33	HIGH KIOSK	20/1	1.20	B	0.00	20/1	SPARE	34
35	SODA COOLERS	20/1	0.96	C	0.00	20/1	SPARE	36
37	DRINK COOLERS	20/1	1.60	A	0.00	20/1	SPARE	38
39	SODA COOLERS	20/1	1.60	B	0.00	20/1	SPARE	40
41	SPARE	20/1	0.00	C	0.00	20/1	SPARE	42
			kVA	PH	AMPS			
			20.8	A	173			
			21.7	B	181			
			18.8	C	157			

VOLTAGE/PHASE	208Y/120V, 3P, 4W
BUS RATING	200A
MAIN CIRCUIT BREAKER RATING	200A
AIC RATING	22K
SERVICE ENTRANCE RATED	YES
ENCLOSURE	NEMA 1
MOUNTING	SURFACE

* VERIFY BREAKER SIZE PRIOR TO INSTALLATION

NOTE: CIRCLED CIRCUITS REPRESENT BREAKER LOCKS

PANEL R

CKT	LOAD	BKR	LOAD kVA	PH	LOAD kVA	BKR	LOAD	CKT
1	A-1-A REACH IN DAIRY CASE	20/2	1.12	A	3.21	40/2	A-2-A REACH IN FROZEN CASE	2
3			1.12	B	3.21			4
5	A-1-B REACH IN DAIRY CASE	20/2	1.12	C	3.08	35/2	A-2-B REACH IN FROZEN CASE	6
7			1.12	A	3.08			8
9	A-1-C REACH IN DAIRY CASE	20/2	1.12	B	3.08	35/2	A-2-C REACH IN FROZEN CASE	10
11			1.12	C	3.08			12
13	A-1-D REACH IN DAIRY CASE	20/2	1.12	A	2.13	30/2	A-3 REACH IN FROZEN CASE	14
15			1.12	B	2.13			16
17	72" COOLER	20/1	1.15	C	0.92	20/2	72" FREEZER	18
19	PRODUCE COOLER	20/1	1.15	A	0.92			20
21	COOLER	15/2	1.30	B	1.66	30/2	PRODUCE COOLER	22
23			1.30	C	1.66			24
25	SPARE	20/1	0.00	A	0.00	20/1	SPARE	26
27	SPARE	20/1	0.00	B	0.00	20/1	SPARE	28
29	SPARE	20/1	0.00	C	0.00	20/1	SPARE	30
31	SPARE	20/1	0.00	A	0.00	20/1	SPARE	32
33	SPARE	20/1	0.00	B	0.36	20/1	SERVICE RECEPT. ON ROOF	34
35	SPARE	20/1	0.00	C	0.00	20/1	SPARE	36
37	SPARE	20/1	0.00	A	0.00	20/1	SPARE	38
39	SPARE	20/1	0.00	B	0.00	20/1	SPARE	40
41	SPARE	20/1	0.00	C	0.00	20/1	SPARE	42
			kVA	PH	AMPS			
			13.9	A	115			
			15.1	B	126			
			13.4	C	112			

VOLTAGE/PHASE	208Y/120V, 3P, 4W
BUS RATING	200A
MAIN CIRCUIT BREAKER RATING	200A
AIC RATING	22K
SERVICE ENTRANCE RATED	YES
ENCLOSURE	NEMA 1
MOUNTING	SURFACE

NOTE: CIRCLED CIRCUITS REPRESENT BREAKER LOCKS

PANEL B

CKT	LOAD	BKR	LOAD kVA	PH	LOAD kVA	BKR	LOAD	CKT
1	NIGHT LIGHTS	20/1	0.18	A	1.20	20/1	A-2-A REACH IN FROZEN CASE	2
3	RECEIVING LIGHTS	20/1	0.14	B	0.50	20/1	SECURITY RECEPT.	4
5	70% SALES LIGHTS ROWS 2&3	20/1	0.63	C	0.54	20/1	OFFICE RECEPT.	6
7	70% SALES LIGHTS ROWS 5&6	20/1	0.27	A	0.54	20/1	BREAK ROOM RECEPT.	8
9	70% SALES LIGHTS ROWS 1&4	20/1	0.54	B	0.00	20/1	SPARE	10
11	70% SALES LIGHTS ROWS 8&9	20/1	0.45	C	0.00	20/1	SPARE	12
13	BREAK ROOM/OFFICE/RR LIGHTS	20/1	0.15	A	1.08	20/1	BULKHEAD RECEPT.	14
15	30% SALES LIGHTS ROWS 7&10	20/1	0.45	B	0.05	20/1	EMERGENCY EXIT LIGHTS	16
17	70% SALES LIGHTS ROWS 12&15	20/1	0.59	C	0.00	20/1	SPARE	18
19	SPARE	20/1	0.00	A	0.00	20/1	SPARE	20
21	SPARE	20/1	0.00	B	0.00	20/1	SPARE	22
23	BUILDING SIGN	20/1	0.90	C	0.00	20/1	SPARE	24
25	PYLON SIGN	20/1	0.90	A	0.00	20/1	SPARE	26
27	SITE LIGHTING	20/1	0.30	B	0.00	20/1	SPARE	28
29	SITE LIGHTING	20/1	1.40	C	1.20	20/1	POWER TERMINAL BROWN	30
31	SPARE	20/1	0.00	A	1.20	20/1	POWER TERMINAL BROWN	32
33	LEFT SIDE EXT. WALL LIGHTS	20/1	0.14	B	1.20	20/1	POWER TERMINAL GREEN	34
35	FRONT EXT. WALL/CANOPY LIGHTS	20/1	0.58	C	1.20	20/1	POWER TERMINAL GREEN	36
37	SPARE	20/1	0.00	A	1.20	20/1	POWER TERMINAL GREEN	38
39	SPARE	20/1	0.00	B	1.20	20/1	POWER TERMINAL GREEN	40
41	EXTERIOR DUSK/DAWN	20/1	0.05	C	1.20	20/1	POWER TERMINAL BROWN	42
43	SPARE	20/1	0.00	A	0.00	20/1	SPARE	44
45	SEPTIC PUMP CONTROLS	20/1	1.00	B	0.00	20/1	SPARE	46
47	SEPTIC PUMP	35/2	2.88	C	0.00	20/1	SPARE	48
49			2.88	A	0.00	20/1	SPARE	50
51	SPARE	20/1	0.00	B	0.18	20/1	DISPLAY LIGHT	52
53	SPARE	20/1	0.00	C	0.85	20/1	GATORADE	54
			kVA	PH	AMPS			
			9.6	A	80			
			5.7	B	47			
			12.5	C	104			

VOLTAGE/PHASE	208Y/120V, 3P, 4W
BUS RATING	200A
MAIN CIRCUIT BREAKER RATING	200A
AIC RATING	22K
SERVICE ENTRANCE RATED	YES
ENCLOSURE	NEMA 1
MOUNTING	SURFACE

NOTE: CIRCLED CIRCUITS REPRESENT BREAKER LOCKS

EQUIPMENT CONNECTION SCHEDULE (SEE SHEET E1.2 FOR COOLERS/FREEZERS)

SYMBOL	DESCRIPTION	FURN. BY	kVA	VOLT/PH	MCA	MOCP	DISC	AWG	EGC	COND	NOTES
GP-1&2	10 TON GAS ROOF TOP UNITS	M.C.	21.59	208/3	51.0	60	60	#6	#10	1 1/4"	1, 2, 3
GP-3	5 TON GAS ROOF TOP UNITS	M.C.	9.36	208/3	26.0	35	60	#8	#10	1"	1, 2, 3
P-7	WATER HEATER	P.C.	1.65	115/1	13	20	30	#12	#12	3/4"	1, 2, 3

TABLE NOTES:

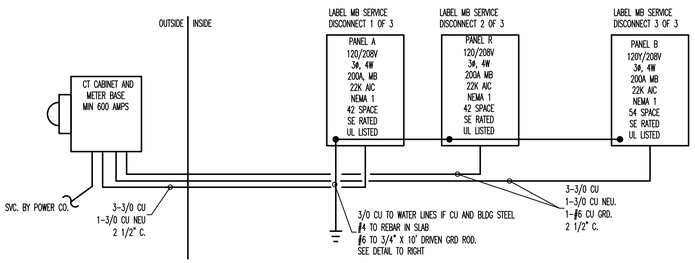
1. THE ELECTRICAL CONTRACTOR SHALL FIELD COORDINATE WITH THE MECHANICAL CONTRACTOR CONCERNING THE ELECTRICAL INFO OF ALL MECHANICAL DEVICES REQUIRING AN ELECTRICAL CONNECTION PRIOR TO DOING ANY WORK. ANY DISCREPANCIES BETWEEN THE FIELD OBTAINED INFORMATION AND THE INFORMATION SHOWN ON THE ELECTRICAL PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO DOING ANY WORK.
2. PROVIDE NEUTRALS ON AS REQUIRED BASIS, FIELD VERIFY.
3. ALL DISCONNECTS TO BE HEAVY DUTY. FUSES TO BE RK-5 TYPE, SUBMIT SHOP DRAWINGS. BUSSMAN FRN-R-(AMP) IS SPECIFIED.

NEC ELECTRIC DEMAND SUMMARY 208Y/120V, 3P, 4W

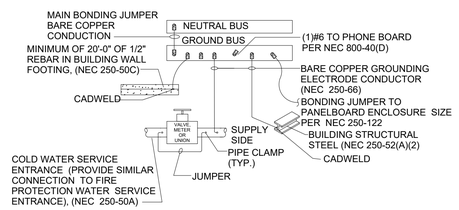
EQUIPMENT	DEMAND FACTOR	kVA A	kVA B	kVA C	LOAD kVA	NEC REFERENCE	NOTES/CALCULATIONS
LIGHTING	100%	5.58	5.58	5.58	16.74	220.12	88125SF X 1.9VA/SF
LIGHTING	100%	0.52	0.52	0.52	1.56	220.12	1300SF X 1.2VA/SF
RECEPTACLES < 10 kVA	100%	0.78	0.78	0.78	2.34	220.44	
RECEPTACLES > 10 kVA	50%	0.00	0.00	0.00	0.00	220.44	
HVAC	100%	15.36	15.36	15.36	46.08	--	BASED ON MCA
WATER HEATER	125%	1.65	0.00	0.00	1.65	422.13	STORAGE TANK <120 GAL @ 125%
SHOW WINDOW	100%	0.00	0.00	.36	0.36	220.43(A) 220.14(G)	210.62
SIGN	100%	0.00	0.90	0.90	1.80	220.14(F)	
REFRIGERATION	100%	17.30	18.50	15.60	51.40	--	
SEPTIC PUMP	100%	2.88	0.00	2.88	5.76		
DEMAND kVA PER PHASE		44.07	41.64	41.98			
DEMAND AMPS PER PHASE		367	347	350			

THE CALCULATED LIGHTING LOAD EXCEEDS THE CONNECTED LIGHTING LOAD.

PANEL SCHEDULES AND NEC LOAD SUMMARY | 1



POWER RISER DIAGRAM - NO SCALE | 2



NOTE: ALL GROUNDING SHALL BE INSTALLED IN ACCORDANCE WITH ARTICLE 250-50 OF THE NATIONAL ELECTRICAL CODE.

GROUNDING DETAIL - NO SCALE | 3

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STATE OF NEW YORK JACOB A. BENDER 103909 LICENSED PROFESSIONAL ENGINEER 6/29/23

DOLLAR GENERAL
STORE# 25355
7174 ALLEGHANY RD
BASOM, NY

REVISION:

NO.	DESCRIPTION	DATE

ISSUED:

NO.	DESCRIPTION	DATE
1	FOR PERMITTING	06/29/2023

DRAWN BY: REW/TD
CHECKED BY: JAB/REW

PANEL SCHEDULES AND PANEL RISER DIAGRAM

SHEET NO.

E3

PROJECT NO: 230338

GENERAL NOTES

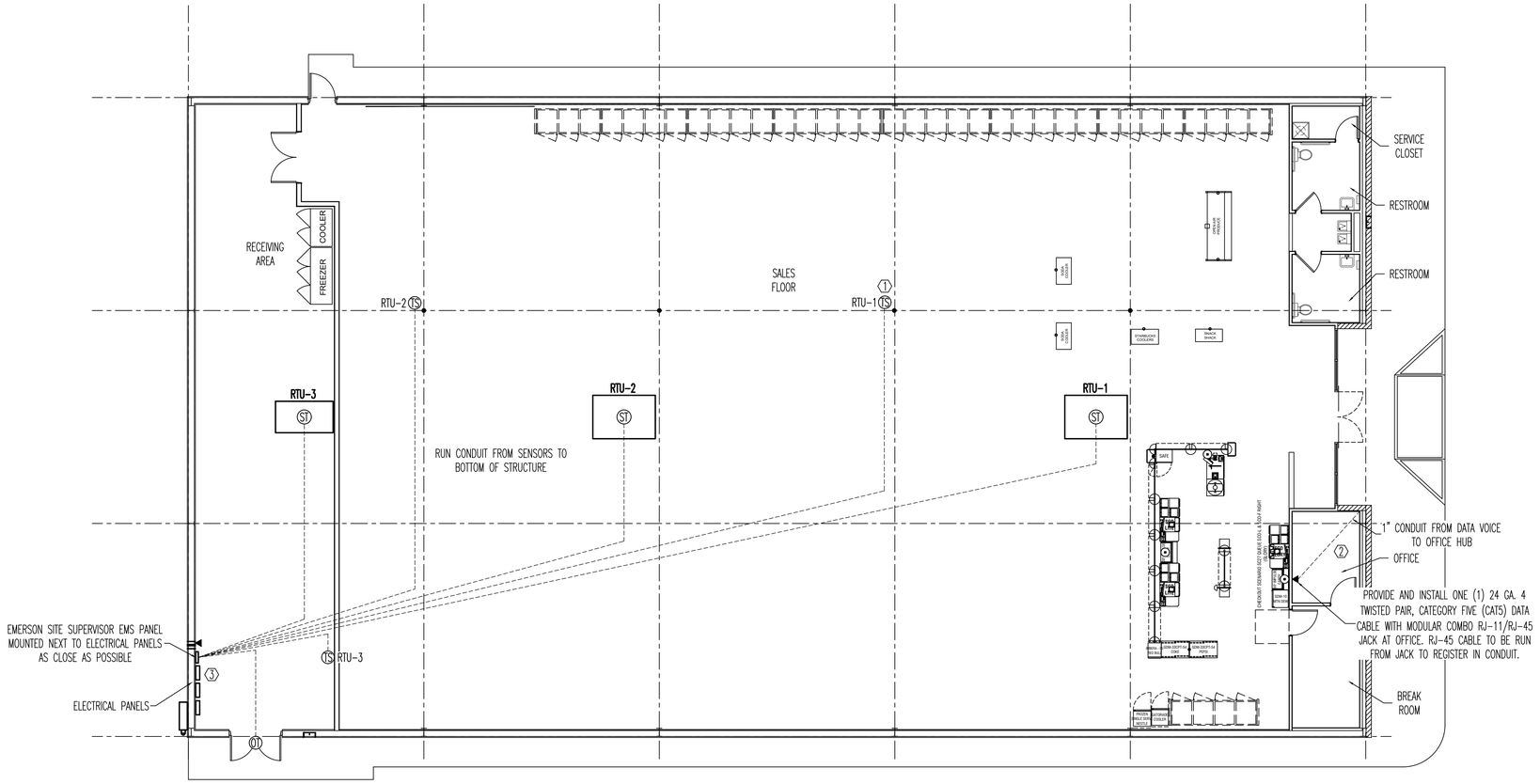
A. REFER TO E1 FOR GENERAL CONTRACTOR RESPONSIBILITIES. E.C. MAY USE CABLE TRAY FOR LOW VOLTAGE CABLES, SEE 2/E2.

B. RUN CONDUIT FROM SENSORS TO BOTTOM OF STRUCTURE.

C. REFRIGERATION UNITS TO BE CONNECTED TO EMS PANEL BY DOLLAR GENERAL REFRIGERATION CONTRACTOR.

SENSOR PLAN KEYED NOTES

1. ALWAYS INSTALL THESE SENSORS AT 8'-0" AFF IF ADDITIONAL HVAC UNITS ARE USED, ADD ADDITIONAL TEMPERATURE SENSORS "TS".
2. PHONE LINE #1 - TWO RJ-11 PORTS. ONE (1) LOCATED IN OFFICE W/RJ-45 DATA JACK COMBO AND ONE (1) AT REGISTER. 24 GA. CAT 5, 4-PAIR TWISTED WIRE ONLY. USE BLUE AND BLUE & WHITE WIRES. HOOK TO LINE #1 TERMINAL IN RJ-11 JACK EACH PHONE JACK TO HAVE DEDICATED, SEPARATE HOME RUN TO DMARC. LABEL AS "PHONE" AT THE DESTINATION AND AT DMARC. PHONE COMPANY PROVIDES FINAL HOOK UP TO DMARC. ONLY PHONE LINE #2 - RJ-11 PHONE JACK SUPPLIED AND WIRED BY CONTRACTOR.
3. EMS REFRIGERATION PANEL CX E2 400. PANEL BY OTHERS. CONNECTION FROM THIS PANEL TO HVAC AND LIGHTING PANEL BY OTHERS. ELECTRICAL CONTRACTOR TO RUN AN EMPTY 1-1/2"C. WITH PULL ROPE BETWEEN THE TWO PANELS.



NOTE:
PLAN IS DIAGRAMIC ONLY. HOLD CONDUIT TIGHT TO EXPOSED MAIN GIRTS AND RUN AS HIGH AS POSSIBLE ALONG PERIMETER WALLS TO RECEIVING AREA.

EMS LOW VOLTAGE PLAN - SCALE 1/8"=1' | 1

EMERSON CONTACT

A. PLEASE CONTACT EMERSON FOR FULL DETAILS.

B. CONTACT TONY VERTUCA - NATIONAL ACCOUNT EXECUTIVE (404)824-9389. Tony.Vertuca@Emerson.com

EMS GENERAL NOTES

1. EMS SUPPLIER NOTE: CUSTOMIZED DOLLAR GENERAL EMS PANEL REQUIRES STORE #, CITY, STATE, ZIP CODE & QTY. OF HVAC UNITS OF THE INSTALL SITE WHEN ORDERING. EMS SYSTEMS INSTALLATION GUIDE WITH PHOTOS IS AVAILABLE ON NATIONAL ACCOUNT WEBSITE. ALL QUESTIONS PERTAINING TO THE EMS PANEL, SYSTEM INSTALLATION & SETUP SHOULD BE DIRECTED TO EMERSON'S DOLLAR GENERAL SUPPORT TEAM AT 770-425-2724.
2. ALL SIGN & LIGHTING CIRCUITS MUST BE FED THROUGH THE DESIGNATED CONTACTORS AS NOTED ON THIS PAGE.
3. ALL LOW VOLTAGE HVAC & DOOR SENSORS MUST BE CONNECTED TO THE PROPER TERMINAL. 24 GA. SHIELDED (SHIELD MUST BE GROUNDED) CABLE, BELDEN #8641, 2 CONDUCTOR WIRE OR IT'S EQUIVALENT IS REQUIRED.
4. COOLER & FREEZER HOME RUNS WILL BE TERMINATED AT ALL POINTS BY DOLLAR GENERAL REFRIGERATION DEPARTMENT.

TESTING NOTES

TESTING OF HVAC UNITS THRU EMS PANEL IS ACCOMPLISHED BY SIMPLY WARMING UP OR COOLING DOWN A SPACE TEMPERATURE SENSOR (USING A BLOW DRYER OR ELECTRONIC EQUIPMENT DUSTER AEROSOL) AND WATCH THE FAN, HEAT AND COOL STAGES CYCLE ON AND OFF. THIS REQUIRES TWO PEOPLE AT ALL TIMES…ONE TO WATCH THE SCREEN AND THE OTHER TO WATCH OPERATION OF THE AHU. WHEN COMPLETE, PRESS THE HOME BUTTON TO RETURN TO THE MAIN SCREEN.

CONTROL PANEL NOTES

1. EMS SYSTEM SHOULD BE TESTED FOR HVAC OPERATION, INTERIOR LIGHTING, EXTERIOR LIGHTING AND SIGN LIGHTING PRIOR TO CONTRACTOR'S ELECTRICAL POSSESSION DATE. USE OUTSIDE LIGHT AND SIGN LIGHT OVERRIDE FOR EXTERIOR TESTING.

DEVICE SCHEDULE

SYMB	DESCRIPTION	CABLE TYPE	SUPPLIER	INSTALLER	NOTES
(OT)	OUTDOOR AIR TEMP MOUNTED 8'-0" A.F.F.	BELDEN 8761 OR EQUIVALENT (22AWG, 2C, STRANDED, SHIELDED)	EMS SUPPLIER	GENERAL CONTRACTOR	(1) PER RECEIVING ENTRY
(ST)	SUPPLY TEMP (501-1121) IN SUPPLY DUCT	BELDEN 8761 OR EQUIVALENT (22AWG, 2C, STRANDED, SHIELDED)	EMS SUPPLIER	GENERAL CONTRACTOR	(1) PER HVAC UNIT
(TS)	TEMP SPACE SENSOR (809-6590) 8'-0" A.F.F.	BELDEN 8761 OR EQUIVALENT (22AWG, 2C, STRANDED, SHIELDED)	EMS SUPPLIER	GENERAL CONTRACTOR	(1) PER HVAC UNIT ZONE
♻	RJ-11/RJ-45 DATA JACK PHONE COMBO	CAT-5 DATA CABLE (24AWG, 4 TWISTED PAIR)	GENERAL CONTRACTOR	GENERAL CONTRACTOR	(1) AT OFFICE COMPUTER CART
$m	MOTION SENSOR SWITCH	LEVITON EZ-FIND ODS-10-IDW	GENERAL CONTRACTOR	GENERAL CONTRACTOR	(1) PER RESTROOM (1) PER BREAK ROOM (1) PER OFFICE

LOW VOLTAGE NOTES | 2

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STATE OF NEW YORK · JACOB A. BENDER · 103909 · LICENSED PROFESSIONAL ENGINEER · 5/24/23

DOLLAR GENERAL
STORE# 25355
7174 ALLEGHANY RD
BASOM, NY

REVISION:

NO	DESCRIPTION	DATE

ISSUED:

NO	DESCRIPTION	DATE
1	FOR PERMITTING	05.25.2023

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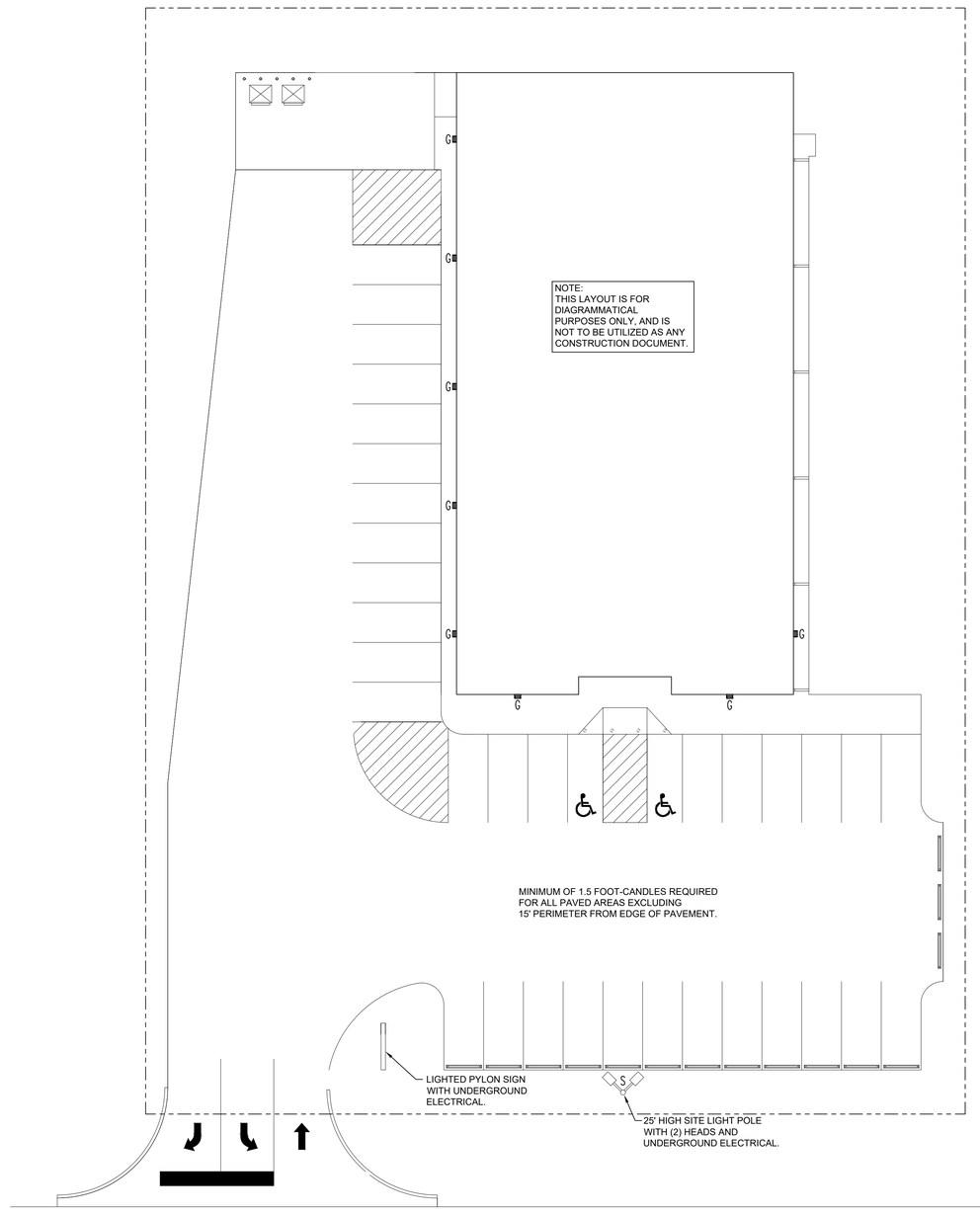
EMS LOW VOLTAGE PLAN

SHEET NO.
EMS1

PROJECT NO: 230338



GENERAL NOTES:

A. FINAL SIGN CONNECTION AND UNDERGROUND CONDUIT IS LANDLORD RESPONSIBILITY. PROVIDE CONDUIT FROM THE ELECTRICAL PANEL TO LOCATION OF THE PYLON SIGN BASE. BURY CONDUIT UNDER PARKING AREA. THE CONDUIT IS TO BE 1" AND HAVE ONE SET TO 10/2 WIRE WITH GROUND AND A 20-AMP TWO POLE BREAKER AT THE PANEL. A TEMPORARY 3' TALL STAKE SHALL BE PROVIDED TO DESIGNATE THE PYLON SIGN LOCATION UNTIL THE SIGN IS PERMANENTLY INSTALLED. REMOVE POST AFTER SIGN IS INSTALLED.

B. SITE / PARKING LOT LIGHTING: PROVIDE ADEQUATE POLE AND/OR WALL LIGHTING FOR NIGHT VISION AROUND ENTRY, PARKING AND DUMPSTER PAD AREAS.

C. MINIMUM OF 1.5 FOOT-CANDLES REQUIRED FOR ALL PAVED AREAS EXCLUDING 15' PERIMETER FROM EDGE OF PAVEMENT.

D. REQUIRED LIGHTING: A COMBINATION OF POLE LIGHTS, FLOOD LIGHTS WITH ARM AND WALL PACKS WILL BE USED. REFER TO ELECTRICAL SITE PLAN AND SHEET E2 FOR ADDITIONAL INFORMATION.

E. PLEASE NOTE THAT LIGHTING DESIGN AND LAYOUT SHOULD BE SITE SPECIFIC & MAY REQUIRE ADDITIONAL LIGHTING TO COMPLY WITH SITE DESIGN CONDITIONS. THEREFORE, MAKE PROVISIONS FOR MORE POLE LIGHTING WHEN A SPECIFIC SITE REQUIRES IT.

F. UNDERGROUND ELECTRICAL SHALL BE PROVIDED TO THE SITE LIGHT POLES.

G. WHERE LOCAL JURISDICTIONS DO NOT ALLOW DOLLAR GENERAL'S REQUIRED LIGHTING PLAN, AN ALTERNATE SITE LIGHTING PLAN & PHOTOMETRIC PLAN MUST BE SUBMITTED FOR APPROVAL TO THE DOLLAR GENERAL ARCHITECTURAL AND ENGINEERING DEPARTMENT.

H. PHOTOMETRIC SITE ANALYSIS AVAILABLE THROUGH DOLLAR GENERAL VENDOR, LEDS LLC.

I. DOLLAR GENERAL VENDOR PRICING FOR WALL PACKS OR POLE LIGHTING AVAILABLE FROM LEDS LLC.

J. SEE SHEET E2 FOR MORE INFORMATION.

K. VERIFY LOCAL DARK SKY REQUIREMENTS AND CONTACT VENDORS FOR APPROVED ALTERNATES IF REQUIRED.

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STATE OF NEW YORK
JACOB A. BENDER
103909
LICENSED PROFESSIONAL ENGINEER
8/24/23

DOLLAR GENERAL
STORE# 25355

7174 ALLEGHANY RD
BASOM, NY

REVISION:

NO	DATE	DESCRIPTION

ISSUED:

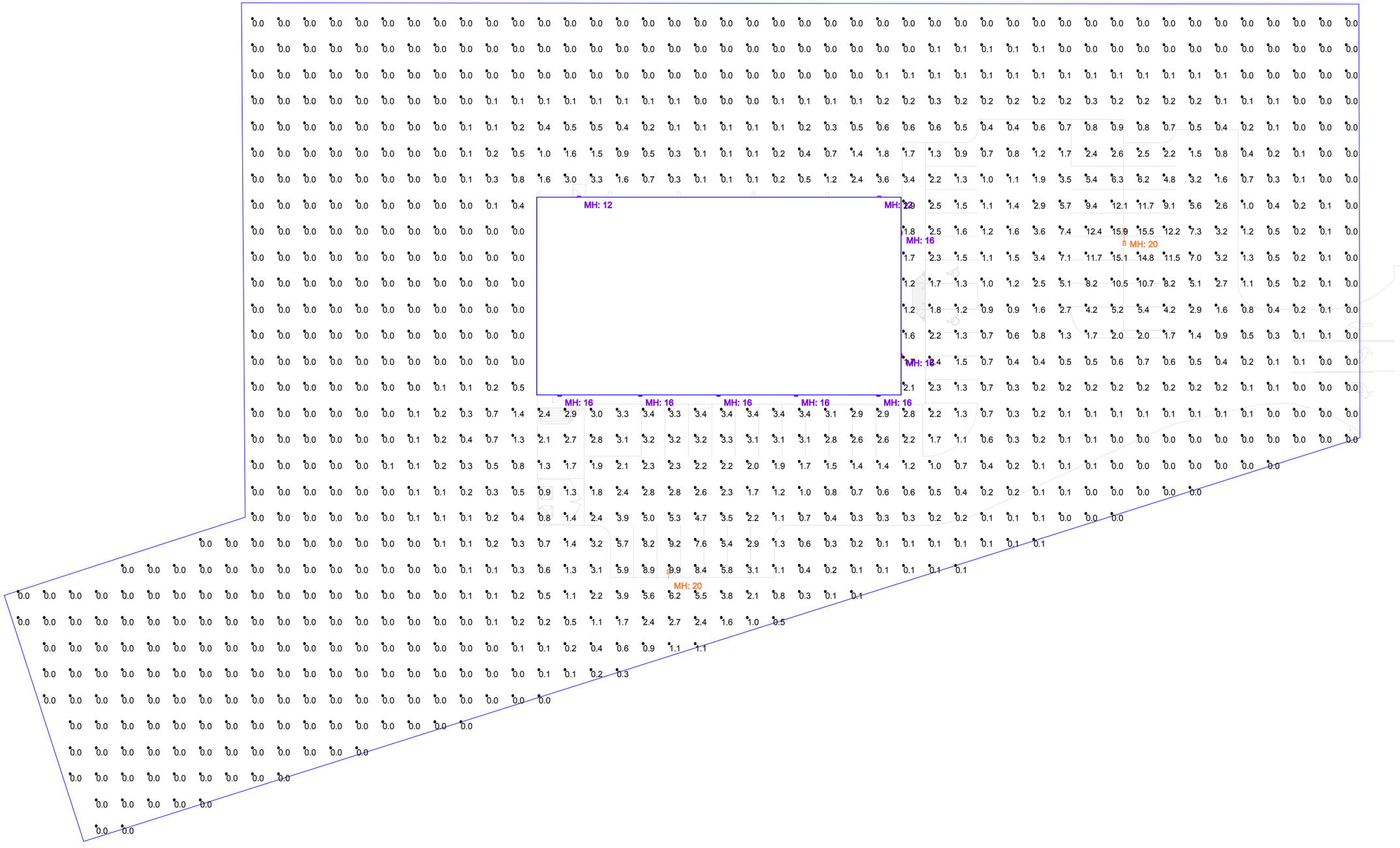
NO	DATE	DESCRIPTION
1	08.29.2023	FOR PERMITTING

DRAWN BY: REW/TD
CHECKED BY: JAB/REW

ELECTRICAL SITE PLAN

SHEET NO.
ES1

ELECTRICAL SITE PLAN - SCALE: 1/16"=1'-0" | 1 | PROJECT NO: 230338



Layout designs are based on information provided by the client and are only to be used as USLED recommendations for luminaire placement. Determination of luminaire application within existing or new field conditions is the responsibility of the engineer and/or architect.
The illumination level calculations within this layout are of those luminaires that have been laboratory tested under controlled conditions in accordance with Illuminating Engineering Society standard practices. Performance of any USLED luminaire may vary based on any varying field conditions. Unless otherwise noted, calculations do not include landscaping, buildings, curbs, or any other architectural elements which may alter the results.

DG #25355 - Basom NY (E).AGI
Date:7/3/2024
Project Name: 10640 SF A
Prepared For: Dollar General

Completed By: SH

500 Morris Oliver Way
Suite 200
Katy, TX 77494

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713.972.9393 FAX

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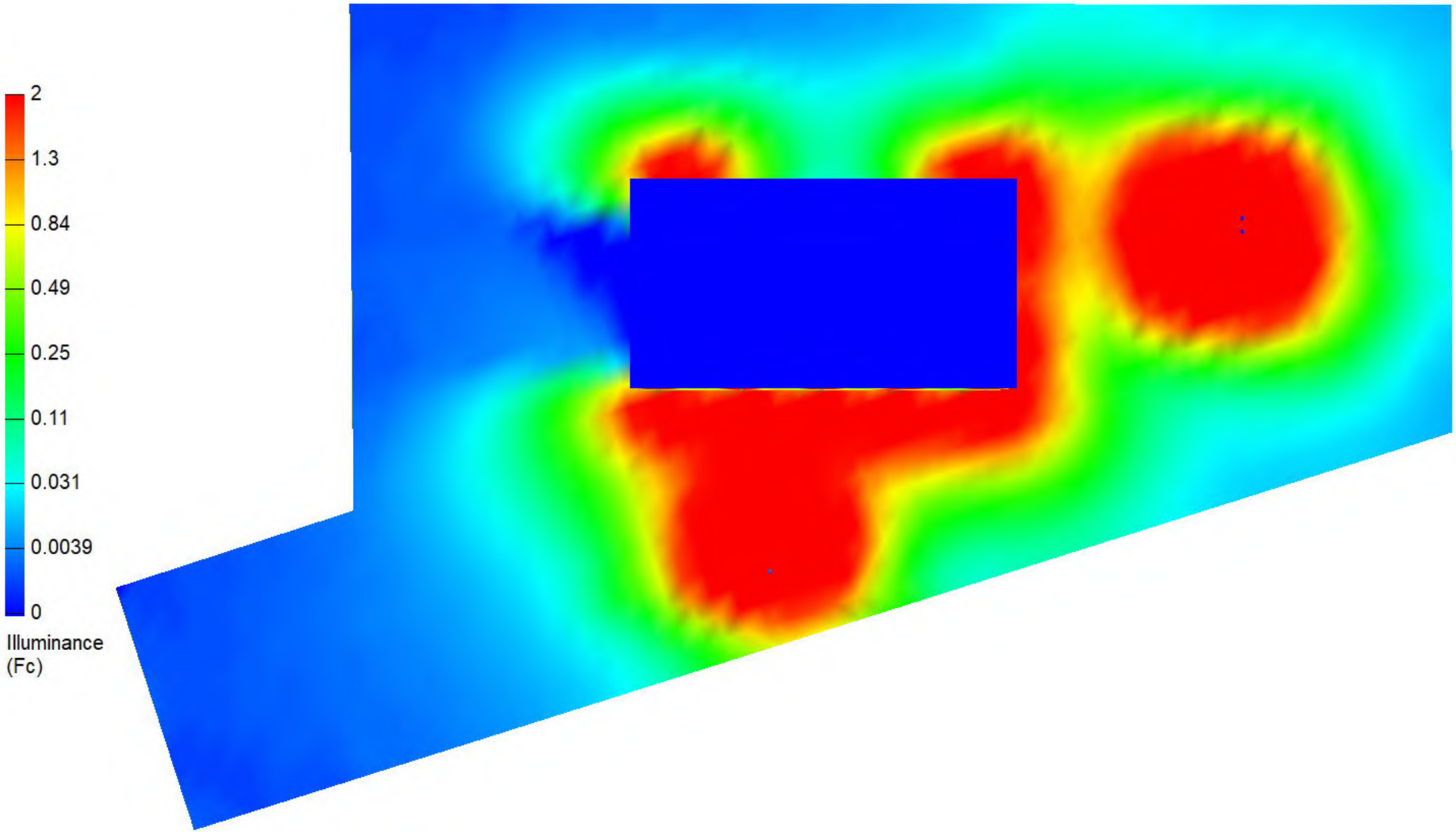
Luminaire Schedule									
Symbol	**Qty**	**Label**	**Description**	**Arrangement**	**LLF**	**Lum. Watts**	**Total Watts**	**Lum. Lumens**	**MH**
	1	QDXLR-150-50-UNVL-1-3-N-Z5	Pole Single - Dorado XLR | 19115lm | 148W | 120-277V | 5000K | 3M Lens	SINGLE	0.963	148.6	148.6	20790	20'
	9	WPR3-UNVL-30-4-50-BZ	Wall Pack | 37.1W | 4701 Lumens | 5000K | Bronze	SINGLE	0.963	30	270	4616	20'
	1	QDXLR-150-50-UNVL-1-3-N-Z5B2B	Pole Single - Dorado XLR | 19115lm | 148W | 120-277V | 5000K | 3M Lens	BACK-BACK	0.963	148.6	297.2	20790	12'/16'

Calculation Summary @ GRADE - Calculation Points = 10'x10'						
Label	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
Ground 1_Planar	Fc	0.86	15.9	0.0	N.A.	N.A.



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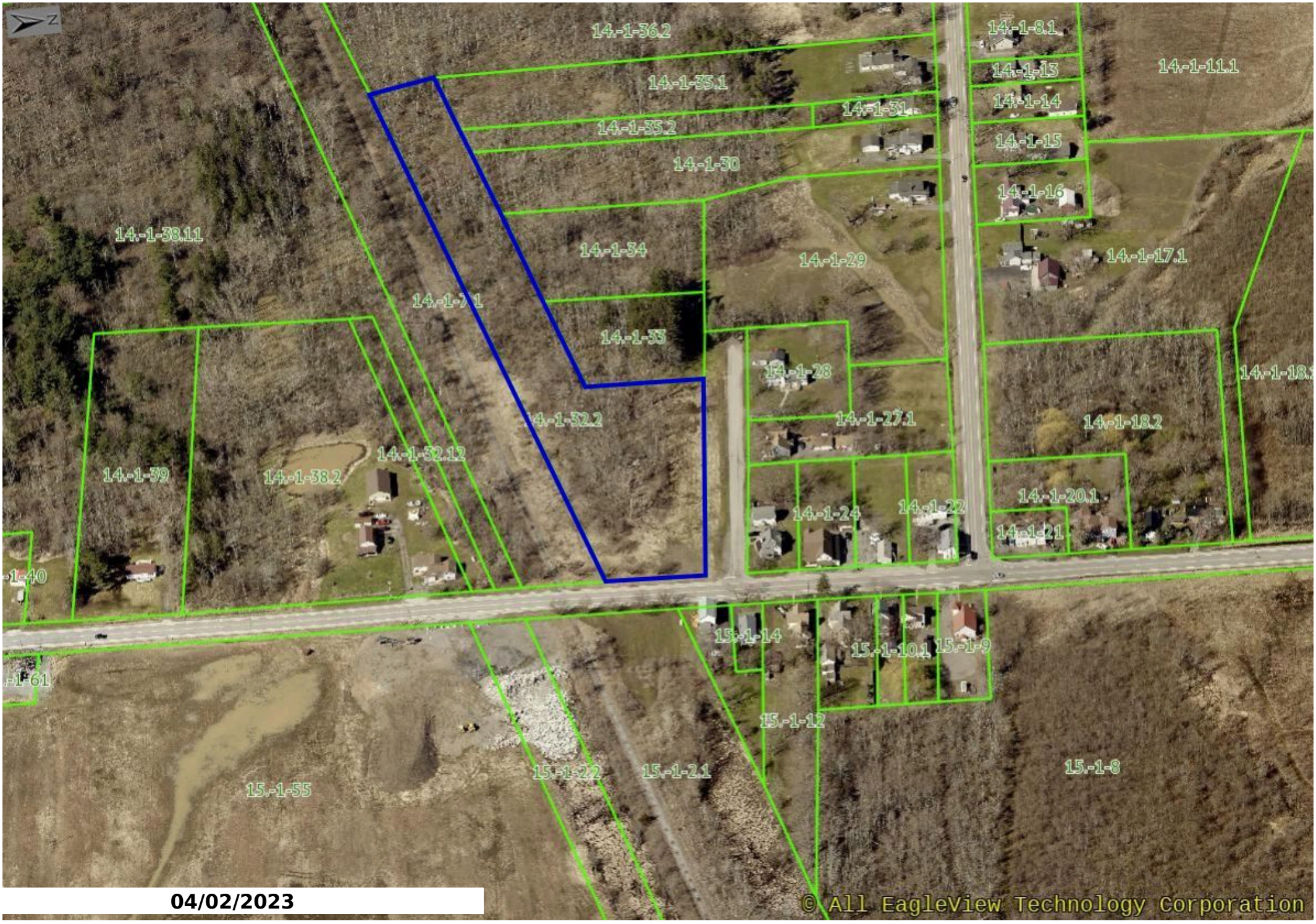
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15.-1-55
04/02/2023
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GEOLOGIC & ENGINEERING SERVICES, DPC

New York Groundwater, Engineering and Environmental Professionals

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

Prepared for Construction Activities At:

7174 Alleghany Road

Alabama, NY 14040

SWPPP Prepared For:

The Broadway Group, LLC

216 Westside Square

Huntsville, AL 35801

(256)533-7287

SWPPP Prepared By:

WMB Geologic & Engineering Services, DPC

David W. Young, PE

284 Route 17C

Waverly, NY 14892

(607)738-2704

SWPPP Preparation Date:

June 28, 2023

Estimated Project Start and End Dates:

September 1, 2023 – June 1, 2024

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1. PROJECT NARRATIVE

This Stormwater Pollution Prevention Plan (SWPPP) have been prepared for earth disturbance activities associated with the construction of a 10,566 square foot commercial building located at 7174 Alleghany Road (SR 77) (Project Site) in the Town of Alabama, Genesee County, NY.

This SWPPP includes the elements necessary to comply with the national baseline general permit for construction activities enacted by the U.S. Environmental Protection Agency (EPA) under the National Pollutant Discharge Elmination System (NPDES) program and all local governing agency requirements. This SWPPP must be implemented at the start of construction.

This SWPPP have been developed in accordance with the "New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit Number GP-0-20-001, effective January 29, 2020 through January 28, 2025. The SWPPP and accompanying plans identify and detail stormwater management, pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This SWPPP and the accompanying plans entitled "7174 Alleghany Road Commercial Building" have been submitted as a set. These engineering drawings are considered an integral part of this SWPPP. Therefore, this SWPPP is not considered complete without them. References made hereing to "the plans" or to a specific "sheet" refer to these drawings.

This report considers the impacts associated with the intended development with the purpose of:

1) Maintaining existing drainage patterns as much as possible while continuing the conveyance of upland watershed runoff;

2) Controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions; and

3) Mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

The analysis and design completed and documented in this report is intended to be part of the application made for a commercial development project completed on behalf of the Owner.

2. SWPPP IMPLEMENTATION RESPONSIBILITIES

A summary of the responsibilities and oblifations of all parties involved with compliance with the NYSDEC SPDES General Permit GP-0-20-001 conditions is outlined in the subsequent sections. For a complete listing of the definitions, responsibilities, and obligations, refer to the SPDES General Permit GP-0-20-001 presented in Appendix A.

A. Definitions:

1. "General SPDES Permit" means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.

2. "Owner" or "Operator" means the person, persons, or legal entity which owns or leases the property on which the construction activity is occurring; an/or an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications. There may be occasions during the course of a project in which there are multiple Owners/Operators, all of which will need to file and maintain the appropriate SWPPP documents and plans, including without limitation, the Notice of Intent (NOI) and Notice of Termination (NOT).

3. "Owner's/Operator's Engineer" means the person or entity retained by an Owner/Operator to design and oversee the implementation of the SWPPP.

4. "Contractor" means the person or entity identified as such in the construction contract with the Owner/Operator. The term "Contractor" shall also include the Contractor's authorized representative, as well as any and all subcontractors retained by the Contractor.

5. "Qualified Inspector" means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s).

   It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that an individual working under direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

NOTE: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

6. "Qualified Professional" means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect, or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (See Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

7. "Trained Contractor" means an employee from a contracting (construction) company, identified in Part III.A.6. of the SPDES General Permit, that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *Trained Contractor* shall receive four (4) hours of training every three (3) years.

   It can also mean an employee from a contracting (construction) company, identified in Part II.A.6 of the SPDES General Permit, that meets the Qualified Inspector qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity.

   The "Trained Contractor(s) will be responsible for the day to day implementation of the SWPPP.

<u>B. Owner's/Operator's Responsibilities</u>

1. Ensure that control measures are selected, designed, installed, implemented and maintained to minimize the discharge of pollutants and prevent a violation of the water quality standards, meeting the non-numeric effluent limitations in Part I.B.1.(a)-(f) of the SPDES General Permit and in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

2. Ensure that practices are selected, designed, installed, and maintained to meet the performance criteria in the Design Manual. Practices must be designed to meet the applicable sizing criteria in Part I.C.2.a., b., c. or d. of SPDES General Permit.

3. Retain the services of a "Qualified Inspector" or "Qualified Professional" as defined under *Definitions* above, to provide the services outlined in *Qualified Inspector's/Qualified Professional's Responsibilities* below.

4. Retain the services of a "Qualified Professional," as defined under *Definitions* above, to provide the services outlined in *Owner's/Operator's Engineers Responsibilities*.

5. Have an authorized corporate officer sign the completed NOI. A copy of the completed NOI is included in Appendix B.

6. Submit the electronic version of the NOI (ENOI) using the NYSDEC's website (http://www.dec.ny.gov/chemical/43133.html):

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits 625 Broadway, 4th Floor
   Albany, New York 12233-3505

   Mike Morris
   Town of Alabama
   2218 Judge Road
   Oakfield, NY 14125
   585-948-9341 x5

7. Pay the required initial and annual fees upon receipt of invoices from NYSDEC. These invoices are generally issued in the fall of each year. The initial fee is calculated as $110.00 per acre disturbed plus $675.00 per acre of net increase in impervious cover, and the annual fee is $110.00.

8. Prior to the commencement of construction activity, identify the contractor(s) and subcontractor(s) that will be responsible for implementing the erosion and sediment control measures and stormwater management practices described in this SWPPP. Have each of these contractors and subcontractors identify at least one "Trained Contractor", as defined under *Definitions* above that will be responsible for the implementation of the SWPPP. Ensure that the Contractor has at least one "Trained Contractor" on site on a daily basis when soil disturbance activities are being performed.

9. Schedule a pre-construction meeting which shall include the Town of Alabama representative, Owner's/Operator's Engineer, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.

10. Retain the services of an independent certified materials testing and inspection firm operating under the direction of a licensed Professional Engineer to perform regular tests, inspections, and certifications of the construction materials used in the construction of all post-construction stormwater management practices.

11. Retain the services of a NYS licensed land surveyor to perform an as-built topographic survey of the completed post-construction stormwater management facilities.

12. Require the Contractor to fully implement the SWPPP prepared for the site by the Owner/Operator's Engineer to ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination (NOT) has been submitted to the NYSDEC.
13. Forward a copy of the NOI Acknowledgement Letter received from the regulatory agency to the Owner's/Operator's Engineer for project records, and to the Contractor for display at the construction site.

14. Maintain a copy of the SPDES General Permit (GP-0-20-001), NOI, NOI Acknowledgement Letter, SWPPP, inspection reports, Spill Prevention, Countermeasures, Cleanup ("SPCC") Plan, and all documentation in accordance with Part I.F.8.a.-d of the SPDES General Permit necessary to demonstrate eligibility with the permit at the construction site, until all disturbed areas have achieved final stabilization and the NOT has been submitted to the NYSDEC. Place documents in a secure location that must be accessible during normal business hours to an individual performing a compliance inspection.

15. Prior to submitting a Notice of Termination, ensure that post-construction stormwater management practice(s) that are privately owned, the Owner/Operator has a deed restriction in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

16. Submit a Notice of Termination (NOT) form (see Appendix B) within 48 hours of receipt of the Owner's/Operator's Engineer's certification of final site stabilization to the following:

    NOTICE OF TERMINATION
    NYS DEC, Bureau of Water Permits 625 Broadway, 4th Floor
    Albany, New York 12233-3505

    Mike Morris
    Town of Alabama
    2218 Judge Road
    Oakfield, NY 14125
    585-948-9341 x5

17. Request and receive all SWPPP records from the Owner's/Operator's Engineer and archive those records for a minimum of five (5) years after the NOT is filed.

18. Implement the Post-Construction Inspections and Maintenance procedures outlined in Appendix F.

19. The NOI, SWPPP, and inspection reports required by the NPDES General Permit are public documents that the Owner/Operator must make available for review and copying by any person within five (5) business days of the Owner/Operator receiving a written request by any such person to review the NOI, SWPPP, or inspection reports. Copying of documents will be done at the requester's expense.

20. The Owner/Operator must keep the SWPPP current at all times. At a minimum, the Owner/Operator shall amend the SWPPP:
    a) Whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater discharges from the project site;
    b) Whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
    c) To address issues or deficiencies identified during an inspection by the "Qualified Inspector," the Department, or other Regulatory Authority.

C. Owner's/Operator's Engineer's Responsibilities

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with all federal, state, and local regulatory requirements.

2. Prepare the Notice of Intent (NOI) form (see Appendix B), sign the "SWPPP Preparer Certification" section of the NOI, and forward to Owner/Operator for signature.

3. Provide copies of the SWPPP to the Town of Alabama once all signatures and attachments are complete.

4. Enter Contractor's information in Section 2.F "SWPPP Participants" once a Contractor is selected by the Owner/Operator.

5. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.

D. Contractor's Responsibilities

1. Sign the SWPPP Contractor's Certification Form contained within Appendix D and forward to the Owner's/Operator's Engineer for inclusion in the Site Log Book.

2. Identify at least one Trained Contractor that will be responsible for implementation of this SWPPP. Ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor shall inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating conditions at all times. If deficiencies are identified, the contractor shall begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

3. Provide the names and addresses of all subcontractors working on the project site. Require all subcontractors who will be involved with construction activities that will result in soil disturbance to identify at least one Trained Contractor that will be on site on a daily basis when soil disturbance activities are being performed; and to sign a copy of the Subcontractor's Certification Form contained within Appendix D, then forward to the Owner's/Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.

4. Maintain a Spill Prevention and Response Plan in accordance with requirements outlined in Section 4.E. of this SWPPP. This plan shall be provided to the Owner's/Operator's Engineer for inclusion in the Site Log Book, prior to mobilization on-site.

5. Participate in a pre-construction meeting which shall include the Town of Alabama representative, Owner/Operator, Owner's/Operator's Engineer, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

6. If Contractor plans on utilizing adjacent properties for material, waste, borrow, or equipment storage areas, or if Contractor plans to engage in industrial activity other than construction (such as operating asphalt and/or concrete plants) at the site, Contractor shall submit appropriate documentation to the Owner's/Operator's Engineer so that the SWPPP can be modified accordingly.

7. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.

8. In accordance with the requirements in the most current version of the NYS Standards and Specifications for Erosion and Sediment Control, conduct inspections of erosion and sediment control measures installed at the site to ensure that they remain in effective operating condition at all times. Prepare and retain written documentation of inspections as well as of all repairs/maintenance activities performed. This information must be retained as part of the Site Log Book.

9. Begin implementing corrective actions within one (1) business day of receipt of notification by the Qualified Inspector/Qualified Professional that deficiencies exist with the erosion

and sediment control measures employed at the site. Corrective actions shall be completed within a reasonable time frame.

10. Maintain a record of the date(s) and location(s) that soil restoration is performed in accordance with the accompanying plans and NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," dated April 2008. A copy of this is publication is provided in Appendix L. The record that is to be maintained shall be a copy of the overall site grading plan delineating the area(s) and date(s) that the soil was restored.

11. Upon completion of all construction at the site, the contractor responsible for overall SWPPP Compliance shall sign the certification on their Contractor Certification Form indicating that: a.) all temporary erosion and sediment control measures have been removed from the site, b.) the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," and c.) all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents.

E. Qualified Inspector's/Qualified Professional's Responsibilities

1. Participate in a pre-construction meeting with the Town of Alabama representative, Owner/Operator, Contractor, and their subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.

2. Conduct an initial assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP have been adequately installed and implemented to ensure overall preparedness of the site.

3. Provide on-site inspections to determine compliance with the SWPPP. Site inspections shall occur at an interval of at least once every seven calendar days. A written inspection report shall be provided to the Owner/Operator and general contractor within one business day of the completion of the inspection, with any deficiencies identified. A sample inspection form is provided in Appendix E.

4. Prepare an inspection report subsequent to each and every inspection that shall include/address the items listed in Part IV.C.4.a-k of SPDES GENERAL PERMIT. Sign all inspection reports and maintain on site with the SWPPP.

5. Notify the owner/operator and appropriate contractor or subcontractor of any corrective actions that need to be taken.

6. Prepare a construction Site Log Book to be used as a record of all inspection reports generated throughout the duration of construction. Ensure that the construction Site Log Book is maintained and kept up-to-date throughout the duration of construction.

7. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports, soil restoration, inspections, and maintenance logs.

8. Based on the as-built survey and material testing certifications performed by others, perform evaluations of the completed stormwater management practices to determine whether they were constructed in accordance with this SWPPP.

9. Conduct a final site assessment and prepare a certification letter to the Owner/Operator indicating that, upon review of the material testing and inspection reports prepared by the firm retained by the Owner/Operator, review of the completed topographic survey, and evaluation of the completed stormwater management facilities, the stormwater management facilities have been constructed substantially in accordance with the contract documents and should function as designed.

10. Prepare the Notice of Termination (NOT). Sign the NOT Certifications VI (Final Stabilization) and VII (Post-construction Stormwater Management Practices) and forward the NOT to the Owner/Operator for signature on Certification VIII (Owner/Operator Certification).

11. Transfer the SWPPP documents, along with all NOI's, permit certificates, NOT's, construction Site Log Book, and written records required by the General Permit to the Owner/Operator for archiving.

F. SWPPP Participants

1. OWNER/OPERATOR: The Broadway Group, LLC
216 Westside Square
Huntsville, AL 35801
(256)533-7287

2. OWNER'S/OPERATOR'S ENGINEER: David W. Young, PE
WMB Geologic and Engineering Services, DPC
284 Route 17C
Waverly, NY 14892
(607)738-2704

3. CONTRACTOR[1]: Name and Title: _____

Company Name: _____

Mailing Address: _____

_____

_____

Phone: _____

Fax: _____

1 Contractor's informaton to be entered once the Contractor has been selected.

3. EXISTING SITE CONDITIONS

A. Land Use And Topography

The Project Site is located at the intersection of Broadway Road (SR20) and Pinkham Road within the Town of Alabama Commercial (C) zoning district. A retail facility is an approved use within this district.

Land Uses surrounding the Project Site include:

1. Residential Development to the south, east and northeast;
2. Agricultural to the north; and
3. Commercial to the west.

The overall Project Site is fairly flat with a minor drop in elevation along the western property boundary. Development site elevations range from approximately 1026 feet above mean sea level (MSL) on the southern property boundary to 1019 feet MSL in the northwest corner of the property at a small drainage channel. This channel flows to the south along the western property boundary.

B. Soils And Groundwater

The United States Department of Agriculture (USDA) Web Soil Survey (http://websoilsurvey.nrcs.usda.gov/app/) was used to obtain surficial soil conditions for the Project Site. The soils map for the Project Site is included in this report as Appendix H - Figure H4. Soil data for the Project Site as provided by the USDA is presented in Table 1.

TABLE 1 – USDA SOIL DATA

Map Symbol & Description	Hydrologic Soil Group	Depth to Water Table (Inches)	Depth to Bedrock (inches)
La - Lakemont Silty Clay Loam, 0-3% Slopes	**D**	**0**	**>80**
OdA – Odessa Silt Loam, 0-3% Slopes	**D**	**6-18**	**>80**

Upon review of the soil data presented in Table 1, the project site does not contain soils with a soil slope phase of E or F.

The Soil Conservation Service defines the hydrologic soil groups as follows:

- Type A Soils: Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a moderate rate of water transmission.

- Type B Soils: Soils having a moderate infiltration rate when thoroughly wet and consisting mainly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately course textures. These soils have a moderate rate of water transmission.

- Type C Soils: Soils having a low infiltration rate when thoroughly wet and consisting chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine-to-fine texture. These soils have a low rate of water transmission.

- Type D Soils: Soils having a very low infiltration rate and high runoff potential when thoroughly wet. These soils consist chiefly of clays that have high shrink-swell potential, soils that have a permanent high water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very low rate of water transmission.

C. Watershed Designation

The Project Site is not located in a restricted watershed identified in Appendix C of the NPDES General Permit.

D. Receiving Water Bodies

The nearest natural classified water course into which runoff from the project site will discharge is Stream 837-79, Whitney Creek. Whitney Creek is classified by NYSDEC as a Class C water course and is not included in the Section 303(d) list of impaired waters found in Appendix E of SPDES GENERAL PERMIT. A copy of the SPDES GENERAL PERMIT is attached to this SWPPP as Appendix A.

E. Aquifer Designation

The project site is not located over a US EPA designated Sole Source aquifer; nor is it located over a Primary or Principal aquifer listed in the NYSDEC Technical and Operational Guidance Series (TOGS) 2.1.3 (1980).

F. Wetlands

The New York State Department of Environmental Conservation Environmental Resource Mapper indicates that State regulated wetlands are not located on or near the overall project parcel. The NYSDEC wetland bearing the designation AX-8 is located to the south approximately 1,600 feet from the Project Site. This wetland is located completely on an adjacent parcel. No impact is anticipated to this NYSDEC Wetland as a result of the proposed project.

G. Floodplains

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), Town of Alabama, New York, Community Panel Number 361067 C, the project site lies within Flood Zone C, an area outside the 500-year flood.

H. Listed, Endangered, Or Threatened Species

The Project Site was reviewed for the presence of Listed, Endangered or Threatened Species of plant and animal life. The NYSDEC Environmental Resource Mapper shows the site within an area of rare plants or animals. Upon research, the NYSDEC environmental assessment form identified the endangered or threatened species as the northern harrier.

I. Historic Places

A search on the New York State Cultural Resource Information System (CRIS) database, performed on March 28, 2023, revealed the construction activity is not located within an archeologically sensitive area. A printout of the historic places screening map is presented in Appendix H, as Figure H3.

To confirm the information gained from the CRIS database, coordination with the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) was completed. An NYSOPRHP letter was received clearing the site and is attached to this SWPPP as Appendix N.

J. Rainfall Data

Rainfall data utilized in the stormwater modeling and analysis was obtained from the National Oceanic and Atmospheric Administration online Point Precipitation Frequency Estimates website. An IDF file was imported into HydroCAD to evaluate the pre- and post-development stormwater runoff characteristics. Mass curves specific to the project site were generated by HydroCAD from the IDF file. Rainfall data specific to the portion of Alabama County under consideration, for various 24-hour storm events, is presented in the following Table:

Design Storm	**24-Hour Rainfall (Inches)**
1-year	1.90
10-year	3.27
100-year	4.91

4. EROSION & SEDIMENT CONTROLS

The SWPPP and accompanying plans identify the temporary and permanent erosion and sediment control measures that have been incorporated into the design of this project. These measures will be implemented during construction, to minimize soil erosion and control sediment transport off-site, and after construction, to control the quality and quantity of stormwater runoff from the developed site.

Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, have been developed in accordance with the following documents:

- NYSDEC SPDES General Permit for Stormwater Discharges From Construction Activity, Permit No. GP-0-20-001 SPDES GENERAL PERMIT (effective January 29, 2020 through January 28, 2025)
- New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (November 2016)

The SWPPP and accompanying plans outline the construction scheduling for implementing the erosion and sediment control measures. These documents include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

Temporary and permanent erosion and sediment control measures that shall be applied during construction generally include:

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction site discharges.

2. Preservation of existing vegetation to the greatest extent practical. Following the completion of construction activities in any portion of the site, permanent vegetation shall be established on all exposed soils.

3. Site preparation activities to minimize the area and duration of soil disruption.

4. Establishment of permanent traffic corridors to ensure that “routes of convenience” are avoided.

A. Construction Sequence

Less than five acres of land disturbance of on-site and additional off-site properties to facilitate construction is anticipated. Therefore, written approval from the Town of Alabama allowing the disturbance of more than five acres of land at any one time is not required. Should the Contractor’s construction sequence require the disturbance of more than five acres at any one

time, written approval must be obtained from the Town of Alabama prior to disturbing more than five acres.

The "Erosion and Sediment Control Plan" in the accompanying drawings identifies the major construction activities that are the subject of this SWPPP. The order (or sequence) in which the major activities are expected to begin is presented on the accompanying drawings, though each activity will not necessarily be completed before the next begins. In addition, these activities could occur in a different order if necessary to maintain adequate erosion and sediment control. If this is the case, the contractor shall notify the Owner's/Operator's Engineer overseeing the implementation of the SWPPP.

The Contractor will be responsible for implementing the erosion and sediment control measures identified on the plans. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper function remains with the Contractor. Refer to the accompanying plans for details and specifications regarding the construction sequencing schedule.

B. Temporary Erosion And Sediment Control Measures

The temporary erosion and sediment control measures described in the following sections are included as part of the construction documents.

1. Stabilized Construction Entrance
   Prior to construction, stabilized construction entrance(s) will be installed, per accompanying plans, to reduce the tracking of sediment onto public roadways.

   Construction traffic must enter and exit the site at the stabilized construction entrance(s). The intent is to trap dust and mud that would otherwise be carried off-site by construction traffic.
   The entrance(s) shall be maintained in a condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, additional aggregate will be placed atop the filter fabric to assure the minimum thickness is maintained. All sediment and/or soil spilled, dropped, or washed onto public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

2. Dust Control
   Water trucks shall be used as needed during construction to reduce dust generated on-site. Dust control must be provided by the Contractor(s) to a degree that is acceptable to the Owner, and in compliance with the applicable local and state dust control requirements.

3. Temporary Soil Stockpile
   Materials, such as topsoil, will be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles shall be located in an area away from storm drainage,

water bodies and/or courses, and will be properly protected from erosion by a surrounding silt fence barrier.

4. Silt Fencing
   Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) will be established downgradient of all disturbed areas. These barriers may extend into non-impact areas to provide adequate protection of adjacent lands.

   Clearing and grubbing will be performed only as necessary for the installation of the sediment control barrier. To facilitate effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s). Maintenance of the fence will be performed as needed.

5. Compost Filter Sock
   Prior to the initiation of and during construction activities, a compost filter sock (or silt sock) will be established downgradient of all disturbed areas. These filters may extend into non-impact areas to provide adequate protection of adjacent lands. The spacing of the compost filter sock, which will depend on the ground slope and diameter of the sock, shall be based upon New York State or EPA guidance.

   Clearing and grubbing will be performed only as necessary for the installation of the sediment control filter; and unlike sediment control barriers, trenching is not required. The ends of the filter sock should be directed upslope, to prevent stormwater from running around the end of the sock. The preferred anchoring method is to drive stakes through the center of the sock at regular intervals; alternatively, stakes can be placed on the downstream side of the sock. To facilitate effectiveness of the compost filter sock, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s) to ensure that they are intact and the area behind the sock is not filled with sediment. Maintenance of the sock will be performed as needed.

6. Temporary Seeding
   For areas undergoing clearing, grading, and disturbance as part of construction activities, where work has temporarily ceased, temporary soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has temporarily ceased.

7. Stone and Block Drop Inlet Protection
   Concrete blocks surrounded by wire mesh and crushed stone will be placed around both existing catch basins, and proposed catch basins once they have been installed, to prevent sediment from entering the catch basins and storm sewer system. During construction, crushed stone shall be replaced as necessary to ensure proper function.
   Filter Fabric Drop Inlet Protection

C. Permanent Erosion And Sediment Control Measures

The permanent erosion and sediment control measures described in the following sections are included as part of the construction documents.

1. Establishment of Permanent Vegetation
   Disturbed areas that will be vegetated must be seeded in accordance with the contract documents. The type of seed, mulch, and maintenance measures as described in the contract documents shall also be followed.

   Permanent soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has permanently ceased.

2. Rock Outlet Protection
   Rock outlet protection shall be installed at the locations as indicated and detailed on the accompanying plans. The installation of rock outlet protection will reduce the velocity and energy of water, such that the flow will not erode downstream surfaces.

3. Permanent Turf Reinforcement
   Permanent turf reinforcement mats (TRMs) provide long-term erosion protection and vegetation establishment assistance while permanently reinforcing vegetation. TRMs shall be installed on slopes/channels where specified. TRM's provide two key advantages. First, their unique fiber shape and 3-D pattern create a thick matrix of voids that trap seed, soil, and water in place for quicker, thicker vegetation growth. Secondly, they provide additional reinforcement that doubles the vegetation's natural erosion protection abilities by remaining a permanent part of the application and anchoring mature plants to the soil for superior, long-term erosion resistance.

D. Other Pollutant Controls

Other necessary pollutant controls are listed below:

1. Solid and Liquid Waste Disposal
   No solid or liquid waste materials, including building materials, shall be discharged from the site with stormwater. All solid waste, including disposable materials incidental to any construction activities, must be collected and placed in containers. The containers shall be emptied periodically by a licensed trash disposal service and hauled away from the site.

   Substances that have the potential for polluting surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the site. As an example, special care must be exercised during equipment fueling and servicing operations. If a spill occurs, it must be contained and disposed of so that it will not flow from the site or enter groundwater, even if this requires removal, treatment, and disposal of soil. In this regard, potentially polluting substances should be handled in a manner consistent with the impact they represent.

2. Sanitary Facilities
   Temporary sanitary facilities will be provided by the Contractor throughout the construction phase. They must be utilized by all construction personnel and will be serviced by a licensed commercial Contractor. These facilities must comply with state and local sanitary or septic system regulations.

3. Water Sources
   Non-stormwater components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or private well approved by the Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site; such water can be retained in temporary ponds/sediment traps until it infiltrates and/or evaporates.

E. Construction Housekeeping Practices

During the construction phase, the Contractor(s) will implement the following measures:

1. Material Stockpiles
   Material resulting from clearing and grubbing operations that will be stockpiled on-site, must be adequately protected with downgradient erosion and sediment controls.

2. Equipment Cleaning and Maintenance
   The Contractor(s) will designate areas for equipment cleaning, maintenance, and repair. The Contractor(s) and subcontractor(s) will utilize those areas. The areas will be protected by a temporary perimeter berm.

3. Detergents
   The use of detergents for large-scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.)

4. Spill Prevention and Response
   A Spill Prevention and Response Plan shall be developed for the site by the Contractor(s). The plan shall detail the steps required in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

   The plan shall include Material Safety Data Sheets (MSDS) for all materials to be stored on-site. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Regular tailgate safety meetings shall be held and all workers that are expected on the site during the week shall be required to attend.

5. Concrete Wash Areas
   Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in specifically designated diked and impervious washout areas,

which have been prepared to prevent contact between the concrete wash and stormwater. Waste generated from concrete wash water shall not be allowed to flow into drainage ways, inlets, receiving waters, or highway right of ways, or any location other than the designated concrete wash areas. Proper signage designating the “Concrete Wash Areas” shall be placed near the facility. Concrete wash areas shall be located at minimum 100 linear feet from drainage ways, inlets, and surface waters.

The hardened residue from the concrete wash areas will be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the wash area is to include removal of hardened concrete. Facility shall have sufficient volume to contain all the concrete waste resulting from washout and a minimum freeboard of 12 inches. Facility shall not be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed. The Contractor will be responsible for seeing that these procedures are followed.

Sawcut Portland Cement Concrete (PCC) slurry shall not be allowed to enter drainage ways, inlets, and/or surface waters. Sawcut residue should not be left on the surface of pavement or be allowed to flow over and off pavement.

The Project may require the use of multiple concrete wash areas. All concrete wash areas will be located in an area where the likelihood of the area contributing to stormwater discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to stormwater discharges.

6. Material Storage

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that prevents negative impacts of construction materials on stormwater quality.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the site, treated, and disposed of at an approved solid waste or chemical disposal facility.

5. STORMWATER MANAGEMENT PLANNING

Chapter 3 of the New York State Stormwater Management Design Manual (Design Manual) outlines a six-step planning and selection process for site planning and selection of stormwater management practices that must be implemented for both new development and redevelopment projects. This process is intended to develop a design that maintains pre-construction hydrologic conditions through the application of environmentally sound development principles, as well as treatment and control of runoff discharges from the site. The following sections outline the step-by-step process and how it has been applied to this project.

The goals of this Stormwater Management Plan are to analyze the peak rate of runoff under pre- and post-development conditions, to maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties, and to minimize the impact to the quality of runoff exiting the site.

The Design Manual provides both water quality and water quantity objectives to be met by projects requiring a “Full SWPPP”. These objectives will be met by applying stormwater control practices to limit peak runoff rates and improve the quality of runoff leaving the developed site.

5.1 Step 1 – Site Planning

During the Site Planning process, the project site is evaluated for implementation of the green infrastructure planning measures identified in Table 3.1 of the Design Manual, in order to preserve natural resources and reduce impervious cover. Appendix L provides a description of each green infrastructure planning measure, along with a project specific evaluation.

5.2 Step 2 - Determine Water Quality Treatment Volume (WQv)

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

5.2.1 NYSDEC Requirements for New Development

The Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the “Water Quality Volume” (WQv). Section 4.2 of the Design Manual defines the Water Quality Volume as follows:

$$WQ_V = \frac{[(P)(Rv)(A)]}{12}$$

Where: P = 90% Rainfall Event Number
Rv = 0.05 + 0.009 (I)
I = Impervious Cover (Percent)
A = Contributing Area in Acres

This definition ensures that, all other things being equal, the Water Quality Volume will increase along with the impervious cover percentage.

5.2.2 Methodology

The Water Quality Volume equation has been applied to the drainage area tributary to each of the stormwater quality practices proposed for this project. The practices have been sized to accommodate the Water Quality Volume, as per the performance criteria presented in Chapter 6 of the Design Manual. Water quality volume calculations for each of the proposed practices are presented in Appendix L.

5.3 Step 3 – Apply Runoff Reduction Techniques and Standard SMPs with RRv Capacity to Reduce Total WQv

Land use change and development in the watershed increases the volume of runoff. As such, reductions in the amount of runoff from new development, accomplished through the implementation of a stormwater management plan for the site, will play an important role in the success or failure of the watershed-wide stormwater management plan. Runoff reduction techniques can be applied to manage, reduce, and treat stormwater, while maintaining and restoring natural hydrology through infiltration, evapo-transpiration, and the capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they can decrease the size of the peak runoff rate reduction facilities.

5.3.1 NYSDEC Requirements for New Development

The Design Manual states that runoff reduction shall be achieved through infiltration, groundwater recharge, reuse, recycle, and/or evaporation/evapotranspiration of 100-percent of the post-development water quality volume to replicate pre-development hydrology. Runoff control techniques provide treatment in a distributed manner before runoff reaches the collection system, by maintaining preconstruction infiltration, peak runoff flow, discharge volume, as well as minimizing concentrated flow. This can be accomplished by applying a combination of Runoff Reduction Techniques, standard Stormwater Management Practices (SMPs) with RRv capacity, and good operation and maintenance.

5.3.2 Methodology

In order to reduce the required WQv, a site specific evaluation must be performed to determine the most practical means of reducing runoff volume. The Design Manual strongly encourages implementation of a combination of RR techniques and standard SMPs with RRv capacity. The following Table demonstrates a summary of the RRv practices being applied, and both the water quality and runoff reduction volumes they provide. The RR Technique(s) have been designed in accordance with Chapter 5 of the Design Manual. The standard SMP(s) with RRv capacity have been designed in accordance with Chapter 6 of the Design Manual. Refer to the contract drawings for practice dimensions, material specifications, and installation details. Practice specific calculations are presented in Appendix L.

Table 3: Summary of RR Techniques and Standard SMPs with RRv Capacity

5.3.3 Application of Standard Stormwater Management Practices (SMPs) with RRv Capacity

The standard SMPs with RRv capacity, described in the following section, have been incorporated into the stormwater management plan for this project. Design calculations for each measure have been included in Appendix L.

5.3.3.1 Bioretention (F-5)

Bioretention filters are shallow landscaped depressions commonly located in parking lot islands or within small pockets in residential areas that receive stormwater runoff. Stormwater flows into the bioretention area, ponds on the surface, and is gradually infiltrated into the soil bed. Pollutants are removed by a number of processes, such as adsorption, filtration, volatilization, ion exchange, and decomposition. Filtered runoff can either be allowed to infiltrate into the surrounding soil, functioning as an infiltration basin or rainwater garden or collected by an under drain system and discharged to the storm sewer system or directly to receiving waters, functioning like a surface sand filter. Runoff from larger storms is generally diverted past the bioretention area to the stormwater collection and conveyance system.

The Bioretention filter (F-5) was designed according to the criteria set forth in Section 6.4 “Stormwater Filtering Systems” of the Design Manual.

5.4 Step 4 – Determine the Minimum RRv Required

Projects that cannot achieve 100% of the runoff reduction requirement due to site limitations that prevent the use of an infiltration technique and/or infiltration of the total WQv must, at a minimum, reduce a percentage of the runoff from impervious areas to be constructed on the site. In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than minimum Runoff Reduction Volume (RRvmin) determined by the following equation:

RRv_{min} =

$$\frac{[(P)(Rv^*)(Aic)(S)]}{12}$$

Where: RRv_{min} = Runoff Reduction Volume (in acre-feet)
P = 90% Rainfall Event Number
Aic = Total area of new impervious cover (acres)
Rv* = 0.05+0.009(I), where I is 100% impervious
S = Hydrologic Soil Group (HSG) Specific Reduction Factor where:

HSG A = 0.55 HSG C = 0.30
HSG B = 0.40 HSG D = 0.20

Based upon the soil survey data, the majority of the development site consists of soils having a hydrologic soil type C/D. As such, a specific reduction factor of 0.25 could be applied, if site limitations prevent 100% of the WQv from being reduced. Those projects implementing the minimum RRv, must incorporate additional stormwater management practices to meet the balance of the WQv requirement. Design calculations for the minimum required RRv are presented in Appendix L.

5.5 Step 5 – Apply Standard Stormwater Management Practices to Address Remaining Water Quality Volume

If the entire Water Quality Volume is not reduced through implementation of RR techniques and standard SMPs with RRv capacity, then the design must achieve the remaining WQv through the standard SMPs listed in Table 3.3 of the Design Manual.

Table 4: Summary of WQv Provided

Step 2 WQv Required (CF)	Step 3 WQv Reduction by RR Techniques & Standard SMPs w/ RRv Capacity (CF)	Step 5 Reduced WQv to be Treated by Standard SMPs (CF)
2,573	1,046	1,526

Based upon the results listed in Tables 4, 100% of the required RRv and WQv have been met through implementation of RR techniques and standard SMPs with RRv capacity as described in Section 6.3 of this report. The bioretention ponds (P1) provide both RRV capacity (above the minimum RRv volume calculated in Section 6.4 of this report) and provides additional treatment storage equal to the WQv volume remaining, for a total treatment volume equal to the WQv required.

Based on the above, the stormwater quality requirements of the general permit have been met.

5.6 Step 6 - Apply Volume and Peak Rate Control

This report presents the pre-development and post-development features and conditions associated with the rate of surface water runoff within the study area. For both cases, the drainage patterns, drainage structures, soil types, and ground cover types are considered in this study.

5.6.1 NYSDEC Requirements for New Development

Chapter 4 of the Design Manual requires that projects meet three separate stormwater quantity criteria:

1. The Channel Protection (CPv) requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1-year, 24-hour storm event. The Manual defines the CPv detention time as the center of mass detention time through each stormwater management practice. The dry detention pond (P2) has a minimum allowed outlet control orifice size of 3" (to prevent clogging), meeting the design requirements of the SWDM.

2. The Overbank Flood Control (Qp) requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and therefore must spill over into the floodplain. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 10-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

4. The Extreme Flood Control (Qf) requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. This is accomplished by providing detention storage to ensure that, at each design point, the postdevelopment 100-year 24-hour peak discharge rate does not exceed the corresponding predevelopment rate.

5.6.2 Methodology

In order to demonstrate that the NYSDEC detention requirements are being met, the Design Manual requires that a hydrologic and hydraulic analysis of the pre- and post-development conditions be performed using the Natural Resources Conservation Service Technical Release 20 (TR-20) and Technical Release 55 (TR-55) methodologies. HydroCAD, developed by HydroCAD Software Solutions LLC of Tamworth, New Hampshire, is a Computer-Aided-Design (CAD) program for analyzing the hydrologic and hydraulic characteristics of a given watershed and associated stormwater management facilities. HydroCAD uses the TR-20 algorithms and TR-55 methods to create and route runoff hydrographs.

HydroCAD has the capability of computing hydrographs (which represent discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining hydrographs and routing flows though pipes, streams and ponds. HydroCAD can also calculate the center of mass detention time for various hydraulic features. Documentation for HydroCAD can be found on their website: http://www.hydrocad.net/.

For this analysis, the watershed and drainage system was broken down into a network consisting of three types of components as described below:

1. Subcatchment: A relatively homogeneous area of land, which produces a volume and rate of runoff unique to that area.

2. Reach: Uniform streams, channels, or pipes that convey stormwater from one point to another.

3. Pond: Natural or man-made impoundment, which temporarily stores stormwater runoff and empties in a manner determined by its geometry and the hydraulic structure located at its outlets.

Subcatchments, reaches, and ponds are represented by hexagons, squares, and triangles respectively, on the watershed routing diagrams provided with the computations included in Appendix I and Appendix J.

The analysis of hydrologic and hydraulic conditions and proposed stormwater management facilities, servicing the study area, was performed by dividing the tributary watershed into relatively homogeneous subcatchments. The separation of the watershed into subcatchments was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed characteristics for each subcatchment were then assessed from United States Geological Service (USGS) 7.5-minute topographic maps, aerial photographs, a topographical survey, soil surveys, site investigations, and land use maps.

Proposed stormwater management facilities were designed and evaluated in accordance with the Design Manual and local regulatory requirements. The hydrologic and hydraulic analysis considered the 24-hour storm events identified in Table 5.

Table 5: Design Events

Facility	24-hour Storm Event
Storm Sewer	25-year
Detention Basin (pond)	1-year
	10-year
	100-year
Flood Conditions	100-year

5.6.3 Description of Design Points

The study area consists of an overall watershed that encompasses approximately 3.2 acres and contains the approximate 2.0 acres of the proposed developed area. The overall watershed was assumed to drain to the same low point in the middle of the western property line. This location was analyzed to compare the effects resulting from stormwater management facilities proposed as part of the project. Description of the selected design point is provided below.

· Design Point 1: On-site drainage for the entirety of the site development area (including release from the stormwater ponds) is tributary to the property west of the project site, based on the proposed topography and stormwater design.

5.6.4 Pre-development Watershed Conditions

The pre-development project site is covered predominantly by woodlands and meadows. Analysis of pre-development conditions considered existing drainage patterns, soil types, ground cover, and topography. The Pre-Development Watershed Delineation Map has been provided in Appendix H, as Figure H5.

The results of the computer modeling used to analyze the overall watershed under pre-development conditions are presented in Appendix J. A summary of the pre-development watershed runoff rates at each design point is presented in Table 2.

5.6.5 Post-development Watershed Conditions

The post-development improvements include asphalt access drive, parking lot, building, and the loading area. The analysis of post-development conditions considered existing drainage patterns, soil types, ground cover to remain, planned site development, site grading and, stormwater management facilities proposed as part of site improvements. The Post-Development Watershed Delineation Map has been provided in Appendix H, as Figure H6.

The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix K. A summary of the post-development watershed runoff rates for each design point and subcatchment area is presented in Table 2.

5.6.6 Performance Summary

A comparison of the pre- and post-development watershed conditions was performed for all design points and storm events evaluated herein. For all design points and design storms, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in Appendix J and Appendix K, respectively. The following Table summarizes the results of this analysis.

Discharge Flow Rate Comparison

Design Storm	1-year (cfs)	10-year (cfs)	100-year (cfs)
DA1 Pre	1.38	4.45	8.71
DA1 Post (No Treatment)	2.10	5.48	9.86

Discharge Volume Comparison

Design Storm	1-year (acre feet)	10-year (acre feet)	100-year (acre feet)
DA1 Pre	0.118	0.351	0.687
DA1 Post (No Treatment)	0.173	0.443	0.808

For each of the stormwater management facilities that provide detention, the maximum allowable diameter of the Channel Protection Volume orifice has been calculated. Calculations are provided in Appendix L.

6. CONSTRUCTION INSPECTION

A. Preconstruction Inspection And Certification

Prior to the commencement of construction, the Qualified Inspector/Qualified Professional shall conduct an assessment of the site and certify that the appropriate erosion and sediment control measures have been adequately installed and implemented. The Contractor shall contact the Qualified Inspector/Qualified Professional once the erosion and sediment control measures have been installed.

B. Construction Phase Inspections And Maintenance

A Qualified Inspector/Qualified Professional, as defined in Appendix A of the General Permit SPDES GENERAL PERMIT, shall conduct regular site inspections between the time this SWPPP is implemented and final site stabilization. Site inspections shall occur at an interval of at least once every seven (7) calendar days.

The purpose of site inspections is to assess performance of pollutant controls. Based on these inspections, the Qualified Inspector/Qualified Professional will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via stormwater runoff. The general contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit. This entrance will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up-slope side. Additional sediment barriers must be constructed as needed.
3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered, or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement or have a stand of grass with at least 80 percent density. The

density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.

5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

The inspection reports must be completed entirely, and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance.

Within one (1) business day of the completion of an inspection, the Qualified Inspector/Qualified Professional shall notify the Owner/Operator and appropriate contractor or subcontractor of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one (1) business day of the notification and shall complete the corrective actions in a reasonable time frame.

In addition to the inspections performed by the Qualified Inspector/Qualified Professional, the Contractor shall perform routine inspections that include a visual check of all erosion and sediment control measures. All inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the accompanying plans. Sediment removed from erosion and sediment control measures will be exported from the site, stockpiled for later use, or used immediately for general non-structural fill.

It is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the accompanying plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers, sediment traps, etc.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

C. Temporary Suspension of Construction Activities

For construction sites where soil disturbance activities have been temporarily suspended (e.g. Winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the frequency of Qualified Inspector/Qualified Professional inspections can be reduced to once every 30 calendar days. Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Region 8 stormwater contact person and the Town of Alabama in writing.

D. Partial Project Completion

For construction sites where soil disturbance activities have been shut down with partial project completion, all areas disturbed as of the project shutdown date have achieved final stabilization, and all post-construction stormwater management practices required for the completed portion

of the project have been constructed in conformance with the SWPPP and are operational, the inspections by the Qualified Inspector/Qualified Professional can stop. Prior to the shutdown, the Owner/Operator shall notify the NYSDEC Region 8 stormwater contact person and the Town of Alabama in writing.

If soil disturbance activities have not resumed within two years from the date of shutdown, a Notice of Termination (NOT) shall be properly completed and submitted to the NYSDEC.

E. Postconstruction Inspections And Maintenance

Inspections and maintenance of final stabilization measures and post-construction stormwater management practices shall be performed in accordance with Appendix F, once all disturbed areas are stabilized and all stormwater management systems are in place and operable.

7. REPORTING REQUIREMENTS

A. Inspection And Maintenance Reports

Inspection/maintenance reports shall be prepared prior to and during construction in accordance with the schedule outlined herein and in the SPDES General Permit SPDES GENERAL PERMIT Part IV.C. The reports shall be prepared to identify and document the maintenance of the erosion and sediment control measures. A sample inspection form is provided in Appendix E.

Specifically, each inspection shall record the following information:

1. Date and time of inspection.
2. Name and title of person(s) performing inspection.
3. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection.
4. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow.
5. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any discharges of sediment to the surface water body.
6. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance.
7. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced.
8. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection.
9. Indication of the current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards.
10. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s).
11. Identification and status of all corrective actions that were required by previous inspection.
12. Color photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The Qualified Inspector/Qualified Professional shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The Qualified Inspector/Qualified Professional shall also take digital photographs, with

date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The Qualified Inspector/Qualified Professional shall attach the paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

All inspection reports shall be signed by the Qualified Inspector/Qualified Professional. Pursuant to Part II.C.2 of SPDES GENERAL PERMIT, the inspection reports shall be maintained on site with the SWPPP.

B. Site Log Book

The Owner/Operator shall retain a copy of the SWPPP required by the SPDES General Permit at the construction site from the date of initiation of construction activities to the date of final stabilization.

During construction, the Owner's/Operator's Engineer shall maintain a record of all SWPPP inspection reports at the site in the Site Log Book. The Site Log Book shall be maintained on-site and made available to the permitting authority, if necessary.

C. Postconstruction Records And Archiving

Following construction, the Owner/Operator shall retain copies of the SWPPP, the complete construction Site Log Book, and records of all data used to complete the NOI to be covered by this permit, for a period of at least five years from the date that the site is finally stabilized. This period may be extended by the NYSDEC, at its sole discretion, at any time upon written notification.

Records shall be maintained of all post construction inspections and maintenance work performed in accordance with the requirements outlined in Appendix G.

APPENDIX A
NYSDEC SPDES
GENERAL PERMIT GP-0-20-001

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020 Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharge*s.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has <u>not</u> been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

    a. Background information about the scope of the project, including the location, type and size of project

b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner’s or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW’s, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

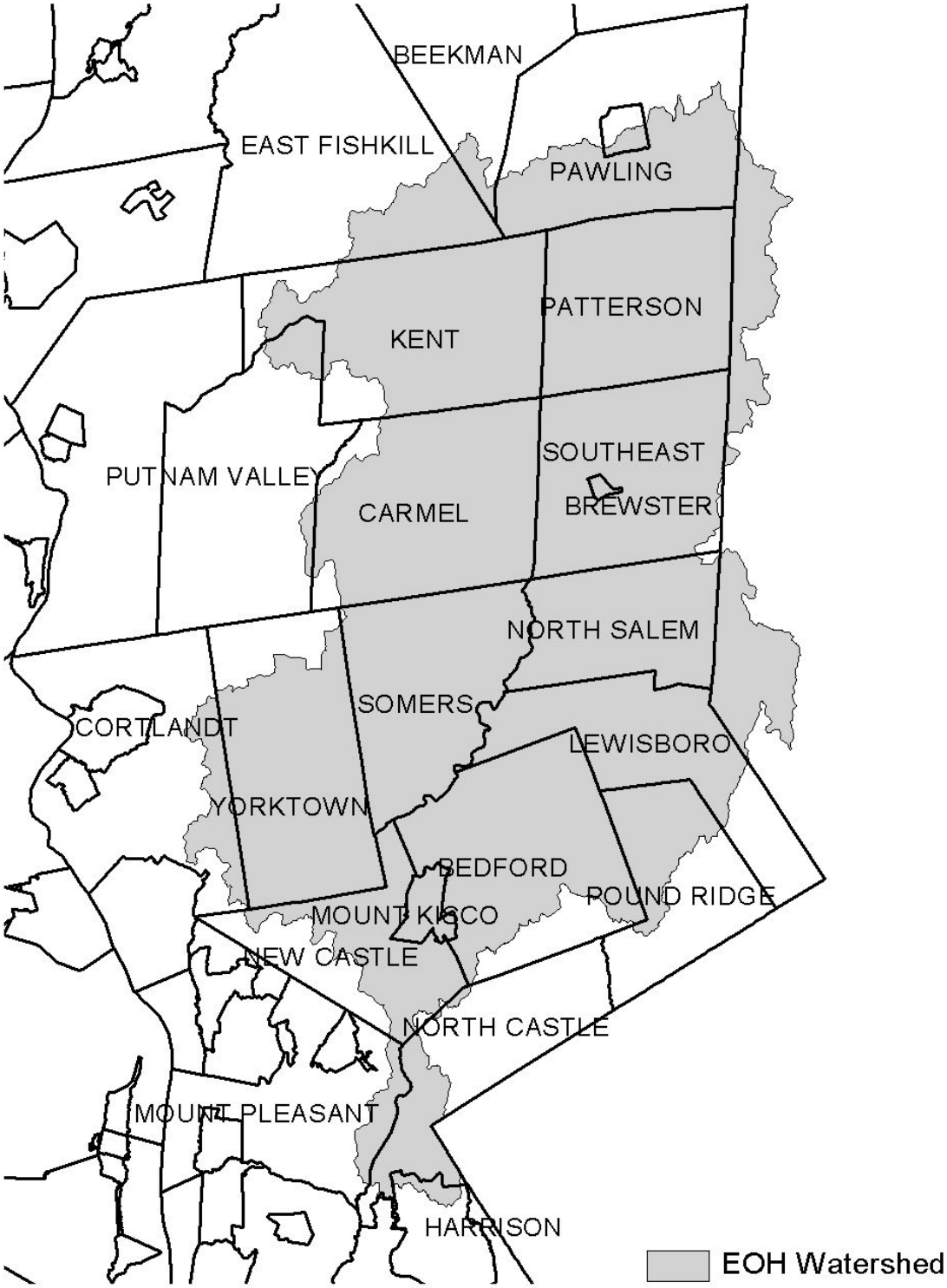


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

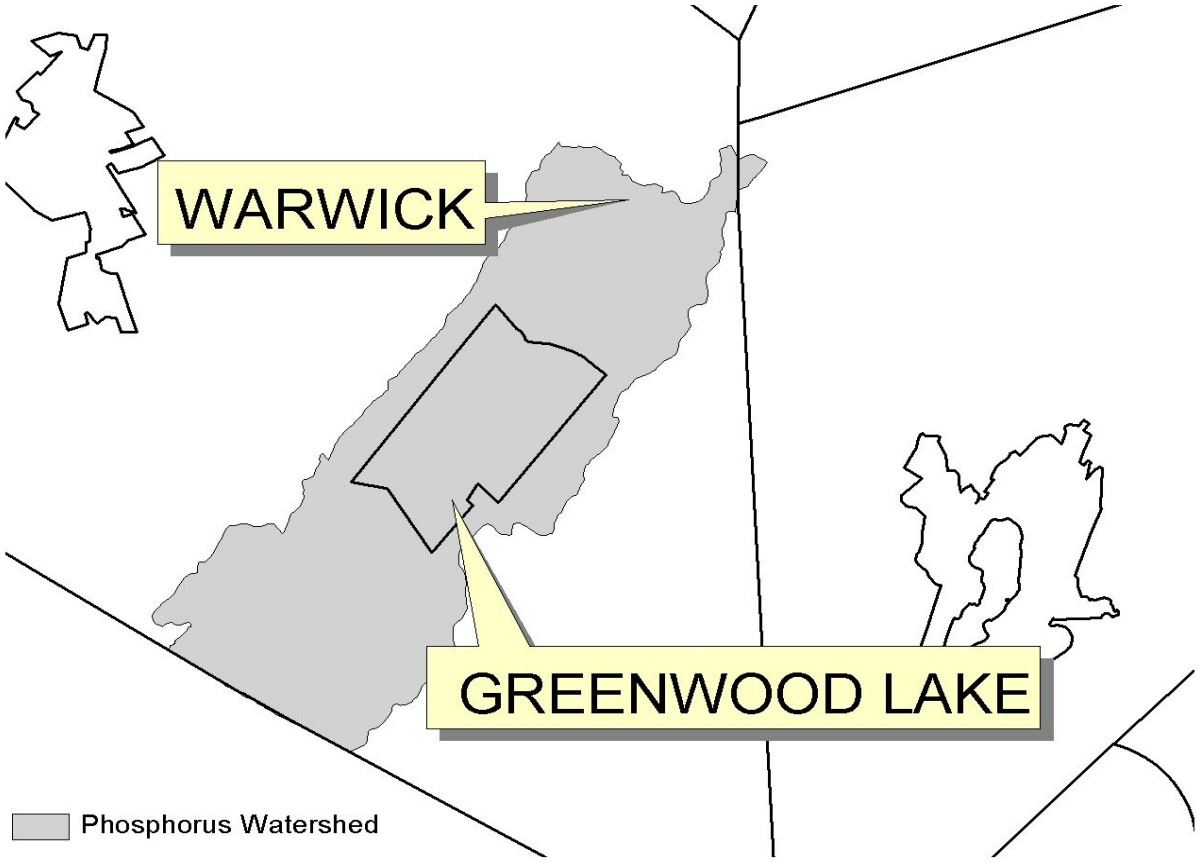


Figure 4 - Oscawana Lake Watershed

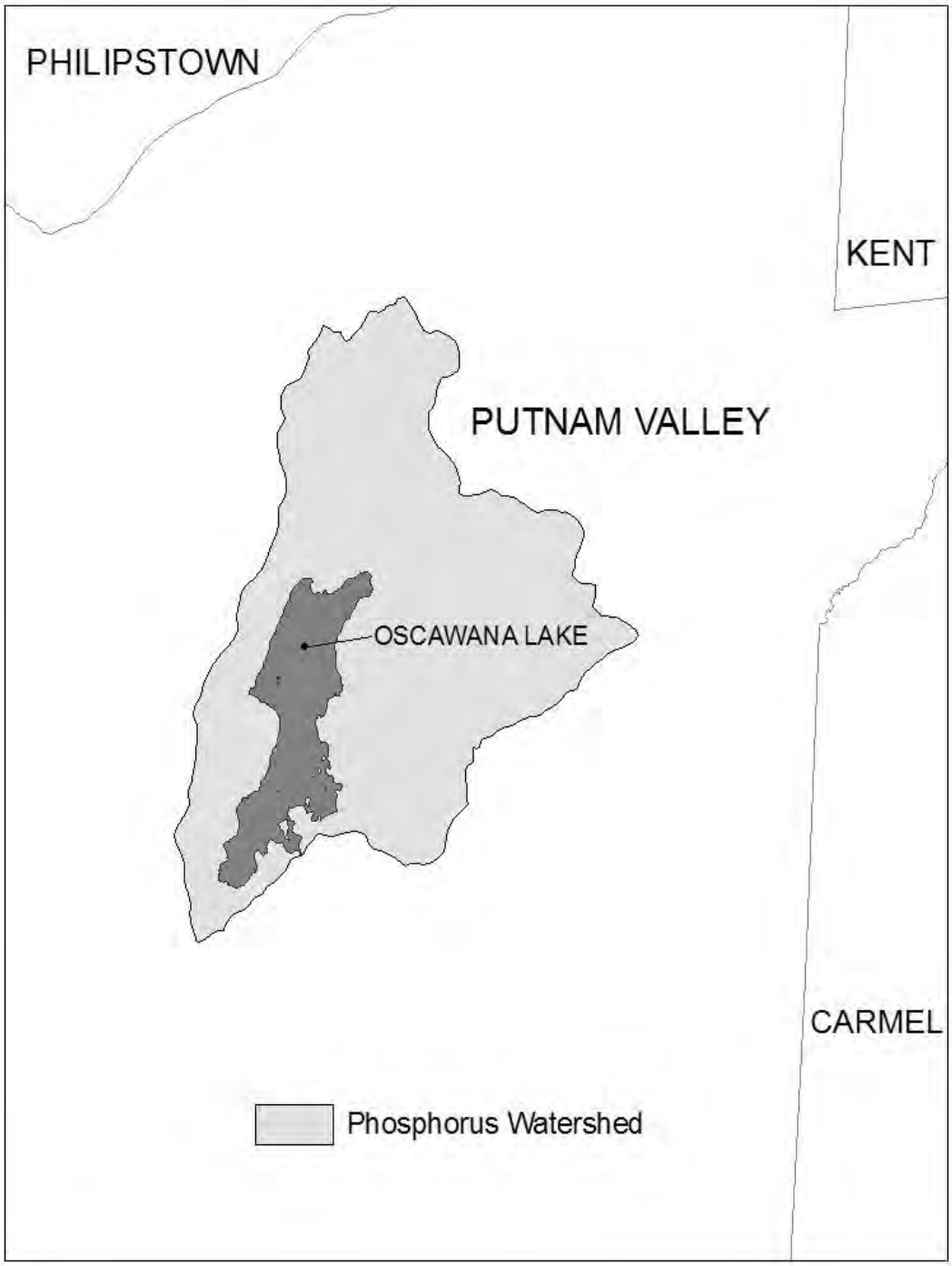
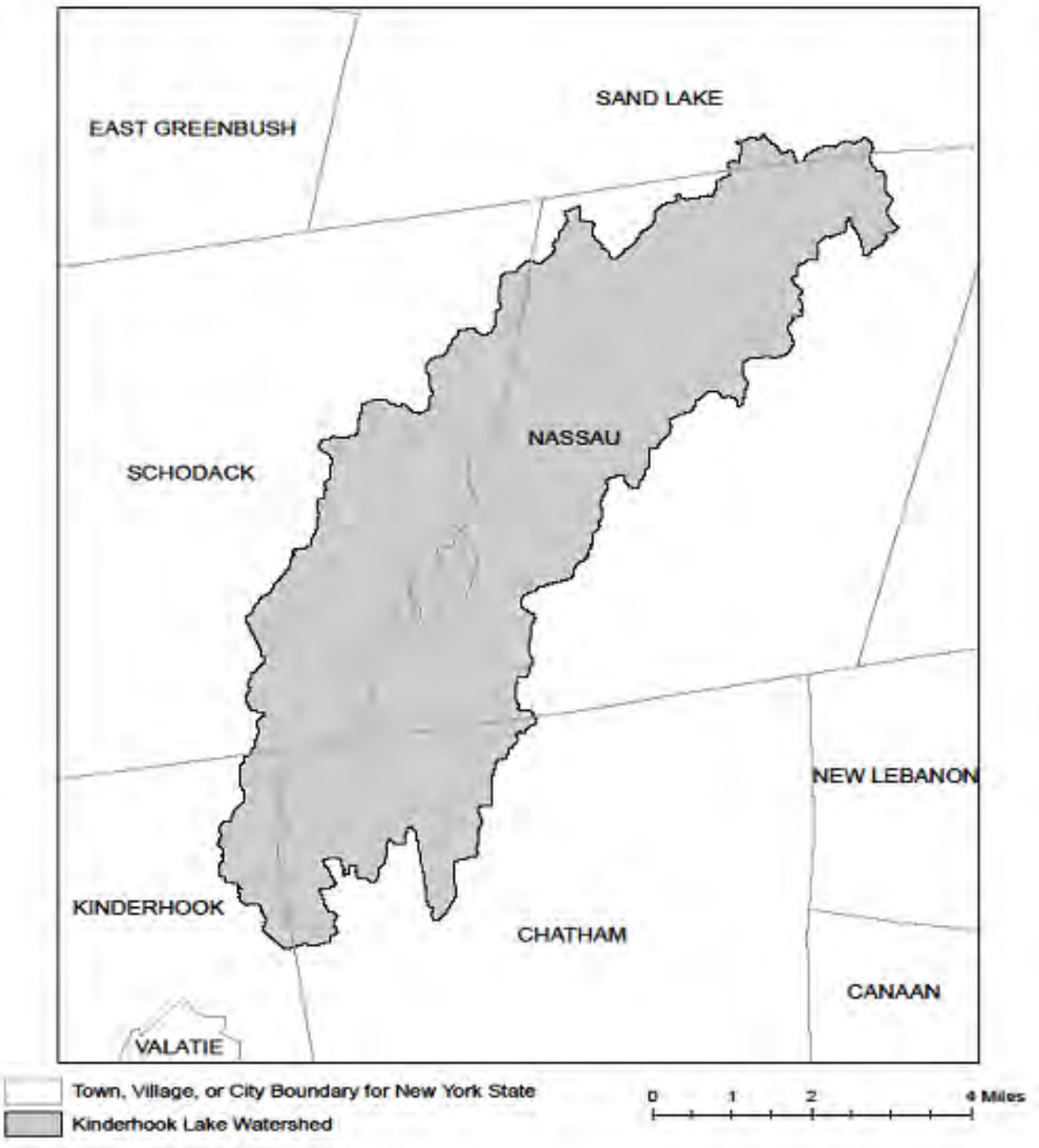


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1W White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX B
NYSDEC NOTICE OF INTENT (NOI)
AND NYSDEC NOTICE OF TERMINATON (NOT)

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:	
Title/Position:	
Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

APPENDIX C

OWNER, DEVELOPER AND SWPPP PREPARER CERTIFICATION FORMS

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: 7174 Alleghany Road Retail Building

eNOI Submission Number: _____

eNOI Submitted by: ☐ **Owner/Operator** ☑ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name M.I. Last Name

_____

Signature

_____

Date

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges From Construction Activity (GP-0-20-001)

Project Site Information

Project/Site Name

7174 Alleghany Road Retail Building

Owner/Operator Information

Owner/Operator (Company Name/Private Owner/Municipality Name)

The Broadway Group

Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First name	MI	Last Name
David	W.	Young

Signature

Date

Revised: January 2020

APPENDIX D

CONTRACTOR AND SUBCONTRACTOR CERTIFICATION FORMS

CONR 5
(10/19)

Contractor / Subcontractor SPDES Permit Certification

Contract No.: _____ PIN: _____

Description: 7174 Alleghany Road Retail Building

Town: Alabama

County: Genesee

Check Applicable Box: ☐ Prime Contractor ☐ Subcontractor

Name of Contractor/
Subcontractor: _____

Address: _____

City: **Lakewood** State: _____ ZIP: _____

Phone: _____ Fax: _____

Core Pay Item Groups for which the Contractor/Subcontractor will be responsible (e.g. 203, 207, 209, etc.): **All Site Work Outside of Building** _____ _____ _____ _____

Mandatory Certification: The SPDES General Permit for Stormwater Discharges from Construction Activities requires the Prime Contractor and subcontractors to certify they understand the Stormwater Pollution Prevention Plan (SWPPP), the General Permit conditions, and their responsibilities for compliance. The certification must be signed prior to performing any contract work. The certification shall be signed by an Owner, Principal, President, Secretary or Treasurer of the firm in accordance with the signature requirements of 102-05 *Proposal Submission* of the Standard Specifications.

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the qualified inspector during a site inspection. I also understand that the owner or operator must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations."

Signature: _____ Date: _____

Name: _____ Title: _____

Required Training: Effective April 30, 2010, the SPDES General Permit also requires the Prime Contractor and all subcontractors ***performing earthwork or soil-disturbing activities*** to identify at least one trained individual ***from each company*** who will be responsible for implementing the SWPPP and who shall be on-site on a daily basis when the company is performing soil disturbance activities. These activities include clearing, grubbing, grading, filling, excavation, stockpiling, demolition, landscaping, and installation and maintenance of Erosion & Sediment Control practices. Training must consist of 4 hours of NYSDEC-endorsed Erosion & Sediment Control Training every 3 years. (Training is not required if the individual is a licensed Professional Engineer, registered licensed Landscape Architect, or CPESC.) Provide the information below for trained individuals who will be on-site and responsible for SWPPP implementation on this Contract (attach a separate sheet if needed for additional Trained Individuals):

Trained Individual Name/Title : _____

Name of Training Course: _____

Trainee Number: _____ Date of Training: _____

Trained Individual Name/Title : _____

Name of Training Course: _____

Trainee Number: _____ Date of Training: _____

Print Form Make Form Read-Only (Cannot be undone)

APPENDIX E

SWPPP INSPECTION REPORT (SAMPLE FORM)

ATTACHMENT 1

Construction Stormwater Compliance Inspection Report

Project Name and Location: 1658 Broadway Road Retail Building	Date:	Page 1 of 2
	Permit # (if any): **NYR**	
Municipality: Darien (T) County: Genesee	Entry Time:	Exit Time:
On-site Representative(s) and contact information:	Weather Conditions:	
Name and Address of SPDES Permittee/Title/Phone/Fax Numbers: Contacted: Yes ☐ No ☐		

INSPECTION CHECKLIST

SPDES Authority

	Yes	No	N/A		Law, rule or permit citation
1.	☐	☐	☐	Is a copy of the NOI posted at the construction site for public viewing?	
2.	☐	☐	☐	Is an up-to-date copy of the signed SWPPP retained at the construction site?	
3.	☐	☐	☐	Is a copy of the SPDES General Permit retained at the construction site?	

SWPPP Content

	Yes	No	N/A		Law, rule or permit citation
4.	☐	☐	☐	Does the SWPPP describe and identify the erosion & sediment control measures to be employed?	
5.	☐	☐	☐	Does the SWPPP provide a maintenance schedule for the erosion & sediment control measures?	
6.	☐	☐	☐	Does the SWPPP describe and identify the post-construction SW control measures to be employed?	
7.	☐	☐	☐	Does the SWPPP identify the contractor(s) and subcontractor(s) responsible for each measure?	
8.	☐	☐	☐	Does the SWPPP include all the necessary 'CONTRACTOR CERTIFICATION' statements?	
9.	☐	☐	☐	Is the SWPPP signed/certified by the permittee?	

Recordkeeping

	Yes	No	N/A		Law, rule or permit citation
10.	☐	☐	☐	Are inspections performed as required by the permit (every 7 days and after ½" rain event)?	
11.	☐	☐	☐	Are the site inspections performed by a qualified professional?	
12.	☐	☐	☐	Are all required reports properly signed/certified?	
13.	☐	☐	☐	Does the SWPPP include copies of the monthly/quarterly written summaries of compliance status?	

Visual Observations

	Yes	No	N/A		Law, rule or permit citation
14.	☐	☐	☐	Are all erosion and sediment control measures installed/constructed?	
15.	☐	☐	☐	Are all erosion and sediment control measures maintained properly?	
16.	☐	☐	☐	Have all disturbances of 5 acres or more been approved prior to the disturbance?	
17.	☐	☐	☐	Are stabilization measures initiated in inactive areas?	
18.	☐	☐	☐	Are permanent stormwater control measures implemented?	
19.	☐	☐	☐	Was there a discharge into the receiving water on the day of inspection?	
20.	☐	☐	☐	Are receiving waters free of there evidence of turbidity, sedimentation, or oil ? (If no , complete Page 2)	

Overall Inspection Rating: ❑ Satisfactory ❑ Marginal ❑ Unsatisfactory	
Name/Agency of Lead Inspector:	**Signature of Lead Inspector:**
Names/Agencies of Other Inspectors:	

Water Quality Observations

Describe the discharge(s) [source(s), impact on receiving water(s), etc.] ____

____

____

____

____

Describe the quality of the receiving water(s) both upstream and downstream of the discharge____

____

____

____

____

Describe any other water quality standards or permit violations ____

____

____

Additional Comments:____

____

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☐ Photographs attached

APPENDIX F
CONSTRUCTION SITE
LOG BOOK

APPENDIX F
CONSTRUCTION SITE INSPECTION AND MAINTENANCE LOG BOOK

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES

SAMPLE CONSTRUCTION SITE LOG BOOK

Table of Contents

I. **PRE-CONSTRUCTION MEETING DOCUMENTS**

Project Name 1658 Broadway Road Retail Building

Permit No. _____ Date of Authorization _____

Name of Operator The Broadway Group

Prime Contractor _____

a. **Preamble to Site Assessment and Inspections**

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified inspector[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements. A preconstruction meeting should be held to review all of the SWPPP requirements with construction personnel.

When construction starts, site inspections shall be conducted by the qualified inspector at least every 7 calendar days. The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified inspector perform a final site inspection. The qualified inspector shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 Refer to "Qualified Inspector" inspection requirements in the current SPDES General Permit for Stormwater Discharges from Construction Activity for complete list of inspection requirements.
2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.
3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Pre-construction Site Assessment Checklist
(NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

[ ] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
[ ] [ ] [ ] Is the SWPPP on-site? Where?_____
[ ] [ ] [ ] Is the Plan current? What is the latest revision date?_____
[ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?_____
[ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

Yes No NA

[ ] [ ] [ ] Are construction limits clearly flagged or fenced?
[ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
[ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

[ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.
[ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.
[ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.
[ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Access

Yes No NA

[ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
[ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
[ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Sediment Controls

Yes No NA

[ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.
[ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals
[ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.
[ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

[ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
[ ] [ ] [ ] The plan is contained in the SWPPP on page _____
[ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project.

Required Elements:

1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)	**Date of Inspection**
Qualified Inspector (print name)	**Qualified Inspector Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality

Yes No NA

[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions at the outfalls?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease at the outfalls?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

[ ] [ ] [ ] Is construction site litter, debris and spoils appropriately managed?
[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ] [ ] [ ] Is construction impacting the adjacent property?
[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.
[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.
[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?
[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

3. Stabilized Construction Access

Yes No NA

[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
[ ] [ ] [ ] Installed per standards and specifications?
[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.
[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.
[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

Runoff Control Practices (continued)

2. Flow Spreader

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.
[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

4. Stone Check Dam

Yes No NA

[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
[ ] [ ] [ ] Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Silt Fence and Linear Barriers

Yes No NA

[ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
[ ] [ ] [ ] Fabric buried 6 inches minimum.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is ___% of design capacity.

Sediment Control Practices (continued)

2. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated; Filter Sock or Manufactured practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is 1acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
[ ] [ ] [ ] Manufactured insert fabric is free of tears and punctures.
[ ] [ ] [ ] Filter Sock is not torn or flattened and fill material is contained within the mesh sock.

Sediment accumulation ___% of design capacity.

3. Temporary Sediment Trap

Yes No NA

[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.
[ ] [ ] [ ] Sediment trap slopes and disturbed areas are stabilized.

Sediment accumulation is ___% of design capacity.

4. Temporary Sediment Basin

Yes No NA

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
[ ] [ ] [ ] Sediment basin dewatering pool is dewatering at appropriate rate.

Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design. All practices shall be maintained in accordance with their respective standards.

Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
   a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

APPENDIX G

POST-CONSTRUCTION INSPECTION AND MAINTENANCE

CONSTRUCTION INSPECTION FORM FOR MUNICIPALITIES

Town of Darien

Municipality

For compliance with SPDES General Permit **GP-0-10-001** and Local Code

Project Name and Location: 1658 Broadway Road Retail Building	Date:	
	Permit # (if any): **NYR**	
Municipality: Darien (T) County: Genesee	Entry Time:	Exit Time:
On-site Representative(s): Phone Number:	Weather Conditions:	
Qualified Inspector: Title:		
Name and Address of SPDES Permittee/Title/Phone/Fax Numbers: Contacted Yes☐ No☐		

Purpose of Inspection:

☐ Start of Construction ☐ Erosion & Sediment Control Measures have been installed & stabilized

☐ Follow-Up ☐ Site clearing has been completed ☐ Rough grading has been completed

☐ Complaint ☐ Final Grading ☐ Close of Construction Season

☐ Final Landscaping ☐ Closeout Inspection

Notice of Intent, SWPPP, and Contractor's Certification: Not on Site_____

Citation GP-0-10-001:

Yes	No	NA		
☐	☐	☐	Has a Notice of Intent been filed with the NYS Department of Environmental Conservation?	Section: II.A.1-2
☐	☐	☐	Is a copy of the NOI and NOI Acknowledgement letter, current SPDES Permit, & inspection reports on site and accessible for viewing,	Section: II.C.2
☐	☐	☐	Is there a signed SWPPP on site? Where on site? _____ _____	Section: II.C.2 & VII.H.2
☐	☐	☐	Is a copy of the MS4 SWPPP Acceptance Form available on site and accessible for viewing?	Section: II.C.2
☐	☐	☐	Does the SWPPP identify the contractor(s) and subcontractor(s) responsible for each measure?	Section: III.A.6
☐	☐	☐	Does the SWPPP identify at least one *trained individual* from each contractor(s) and subcontractor(s) companies?	Section: III.A.6
☐	☐	☐	Does the SWPPP include all the necessary contractor certification statements and signatures?	Section: III.A.6
☐	☐	☐	Does the NOI accurately record the number of acres being disturbed?	Section: II.B.5

Recordkeeping Not on Site____

Yes	No	NA		
☐	☐	☐	Are self-inspections performed as required by the permit (weekly, or 2x/week for > 5 acres)?	Section: II.C.3.a & IV.C.2.a-c
☐	☐	☐	Are self-inspections signed by a qualified inspector (PE, LA, CPESC, or someone working under the direct supervision of a PE or LA provided that they have received four hours of Department endorsed training in proper erosion and sediment control)?	Section: IV.C.6 & Appendix A

☐ ☐ ☐	Do the qualified inspector reports include date, time, name and title of person performing inspection, a description of weather, and a description of soil conditions?	Section: IV.C.4.a-c
☐ ☐ ☐	Do the qualified inspector reports include a description of the condition of the runoff at all points of discharge (includes sediment, conveyance systems, and overland flow) from the construction site?	Section: IV.C.4.d
☐ ☐ ☐	Do the qualified inspector reports include a description of the condition of all natural water bodies located within or immediately adjacent to the construction site which receive runoff from disturbed areas?	Section: IV.C.4.e
☐ ☐ ☐	Do the qualified inspector reports identify all erosion and sediment control practices that need repair or maintenance?	Section: IV.C.4.f
☐ ☐ ☐	Do the qualified inspector reports identify all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be re-installed or replaced?	Section: IV.C.4.g
☐ ☐ ☐	Do the qualified inspector reports include a description and sketch of areas that are disturbed at the time of inspection and areas that have been stabilized (temporary or final) since the last inspection?	Section: IV.C.4.h
☐ ☐ ☐	Do the qualified inspector reports include the current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards?	Section: IV.C.4.i
☐ ☐ ☐	Do the qualified inspector reports include the corrective actions to correct deficiencies identified with the construction of the post-construction stormwater management practices?	Section: IV.C.4.j
☐ ☐ ☐	Do the qualified inspector reports include the corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices?	Section: IV.C.4.j
☐ ☐ ☐	Do the qualified inspector reports include color digital photographs, with date stamp, that clearly show the conditions of all practice that have been identified as needing corrective actions?	Section: IV.C.4.k
☐ ☐ ☐	Do the qualified inspector reports include color digital photographs, with date stamp, that clearly show the condition of all the practice(s) after the corrective action has been completed?	Section: IV.C.4.k
☐ ☐ ☐	Are corrective actions being implemented for previously identified deficiencies from Qualified Inspector reports on post-construction stormwater management practices and erosion and sediment control practices?	Section: IV.C.5

Maintaining Water Quality

Yes	No	NA		
☐	☐	☐	Is there evidence that a discharge caused a substantial visible contrast to natural conditions?	Section: I.B.1
☐	☐	☐	Is there evidence of sedimentation in the natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas?	

Area of Disturbance

Yes	No	NA		
☐	☐	☐	Is there greater than 5 acres of disturbance?	
☐	☐	☐	If yes, has written authorization been issued by the DEC or the MS4 and is it accessible on site for viewing?	Section: II.C.3
☐	☐	☐	Does the SWPPP contain a phasing plan that defines the maximum disturbed area per phase and shows the required cuts and fills?	Section: II.C.3.c

General Housekeeping

Yes	No	NA		
☐	☐	☐	Are pollution prevention measures being used to control litter, construction chemicals and construction debris on the site?	Section: II.C.1 & III.B.1.j
☐	☐	☐	Is dust adequately controlled on site?	Section: II.C.1 & III.B.1
☐	☐	☐	Is there evidence of soil erosion at the construction site?	
☐	☐	☐	Have all the erosion and sediment controls measures been installed/constructed as detailed in the SWPPP.	Section: II.C.1 & III.B.1
☐	☐	☐	Are excavation dewatering devices installed according to the most current version of the New York State Standards and Specs?	Section: II.C.1 & III.B.1

Runoff Controls Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA		
☐	☐	☐	Is maintenance of control structures adequate?	
☐	☐	☐	Are stormwater conveyance channels adequately stabilized with channel lining and/or outlet protection?	
☐	☐	☐	Is sediment-laden runoff directed to sediment trapping devices as detailed in the SWPPP?	
☐	☐	☐	Are temporary access waterway crossings installed according to the most current version of NYS Standards and Specs?	

Stone Check Dam Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA		
☐	☐	☐	Installed according to the most current version of the New York State Standards and Specs?	
☐	☐	☐	Is channel stable (flow is not eroding soil underneath or around the structure)?	
☐	☐	☐	Check dam is in good condition (rocks in place and lined with geotextile fabric).	
☐	☐	☐	Has accumulated sediment been removed or planned to be removed?	

Soil Stabilization Section: II.C.3.b & III.B.1.f

Yes	No	NA		
☐	☐	☐	Are soil stabilization measures being implemented in accordance with the time frames (14 days, 7 days for > 5 acres) established in the SWPPP?	
☐	☐	☐	Temporary seedings and mulch have been applied to idle areas (14 days, 7 days for >5 acres)?	
☐	☐	☐	Are areas where final grading has been completed adequately stabilized (14 day rule, 7 day for >5 acres)?	

Stabilized Construction Entrance Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA		
☐	☐	☐	A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed according to the most current version of the New York State Standards and Specs?	
☐	☐	☐	Sediment tracked onto public streets is removed or cleaned on a regular basis?	
☐	☐	☐	Stone is clean enough to effectively remove mud from vehicles?	
☐	☐	☐	Does all traffic use a stabilized entrance to enter and leave site?	
☐	☐	☐	Is adequate drainage provided to prevent ponding at entrance?	

Silt Fence Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA	
☐	☐	☐	Installed on Contour and NOT across conveyance channels?
☐	☐	☐	Installed at least 10 feet from toe of slope?
☐	☐	☐	Installed at appropriate spacing intervals?
☐	☐	☐	Joints constructed by wrapping the two ends together for continuous support & posts are stable?
☐	☐	☐	Fabric buried 6 inches minimum?
☐	☐	☐	Fabric is tight and without rips or frayed areas?
☐	☐	☐	Have any "bulges" developed in the silt fence that requires material to be removed?

Post-Construction Stormwater Management Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA	
☐	☐	☐	Have all stormwater management structures been installed/constructed according to the most current version of the New York State Stormwater Design Manual?
☐	☐	☐	Are sediment basins maintained (sediment removed when 50% capacity is reached)?

Inlet Protection Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA	
☐	☐	☐	Installed according to the most current version of the New York State Standards and Specs?
☐	☐	☐	Maintained and functioning properly?
☐	☐	☐	Is protection one of the following: Excavated drop inlet protection, fabric drop inlet protection, stone and block inlet protection, curb drop inlet protection?
☐	☐	☐	Has sediment been removed when 50% of storage volume has been achieved?
☐	☐	☐	Drainage area is one acre or less.

Stone and Block Drop Inlet Protection Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA	
☐	☐	☐	Have the bottom row of concrete blocks been placed 2" below inlet opening, with a few blocks oriented on their sides to allow flow through them to dewater the surrounding basin?
☐	☐	☐	Has a hardware cloth or ½ inch wire mesh been placed over block openings to support stone?
☐	☐	☐	Does the stone barrier have a minimum height of 1 foot and a maximum height of 2 feet?

Fabric Drop Inlet Protection Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA	
☐	☐	☐	Is there an installed 2-inch x 4-inch wood frame and wood posts, with maximum 3-foot spacing?
☐	☐	☐	Is filter fabric buried a minimum of 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing?
☐	☐	☐	Are posts are stable, fabric is tight and without rips or frayed areas?

Excavated Drop Inlet Protection Section: II.C.1, III.B.1, & IV.A.1

Yes	No	NA	
☐	☐	☐	Is excavated depth a minimum of 1 foot, but no more than 2-feet maximum?
☐	☐	☐	Is gravel supported by hardware cloth to allow drainage and restrict sediment movement?
☐	☐	☐	Are excavated side slopes 2:1?

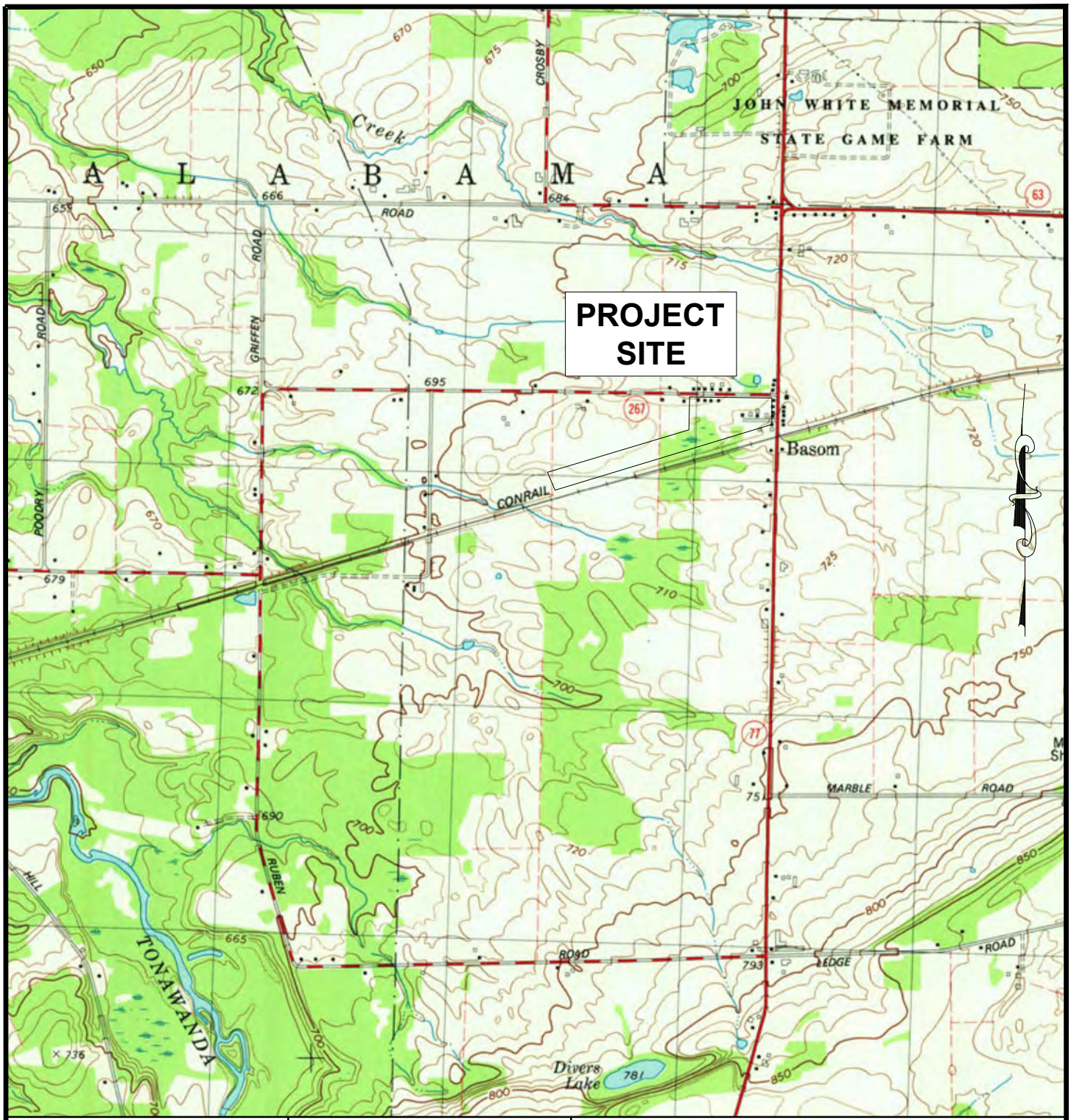
Site Observations/ Comments:

Name and Agency of Inspector:_____

Signature of Inspector:_____

Erosion & Sediment Control Training Stormwater Training Number (SWT#)_____

APPENDIX H
FIGURES



Map References:
This exhibit was prepared based on a reproduction of the USGS Topographic Quadrangle of Akron, NY

FIGURE H1
LOCATION MAP

0 2000 4000
FEET
1 in = 2000 ft

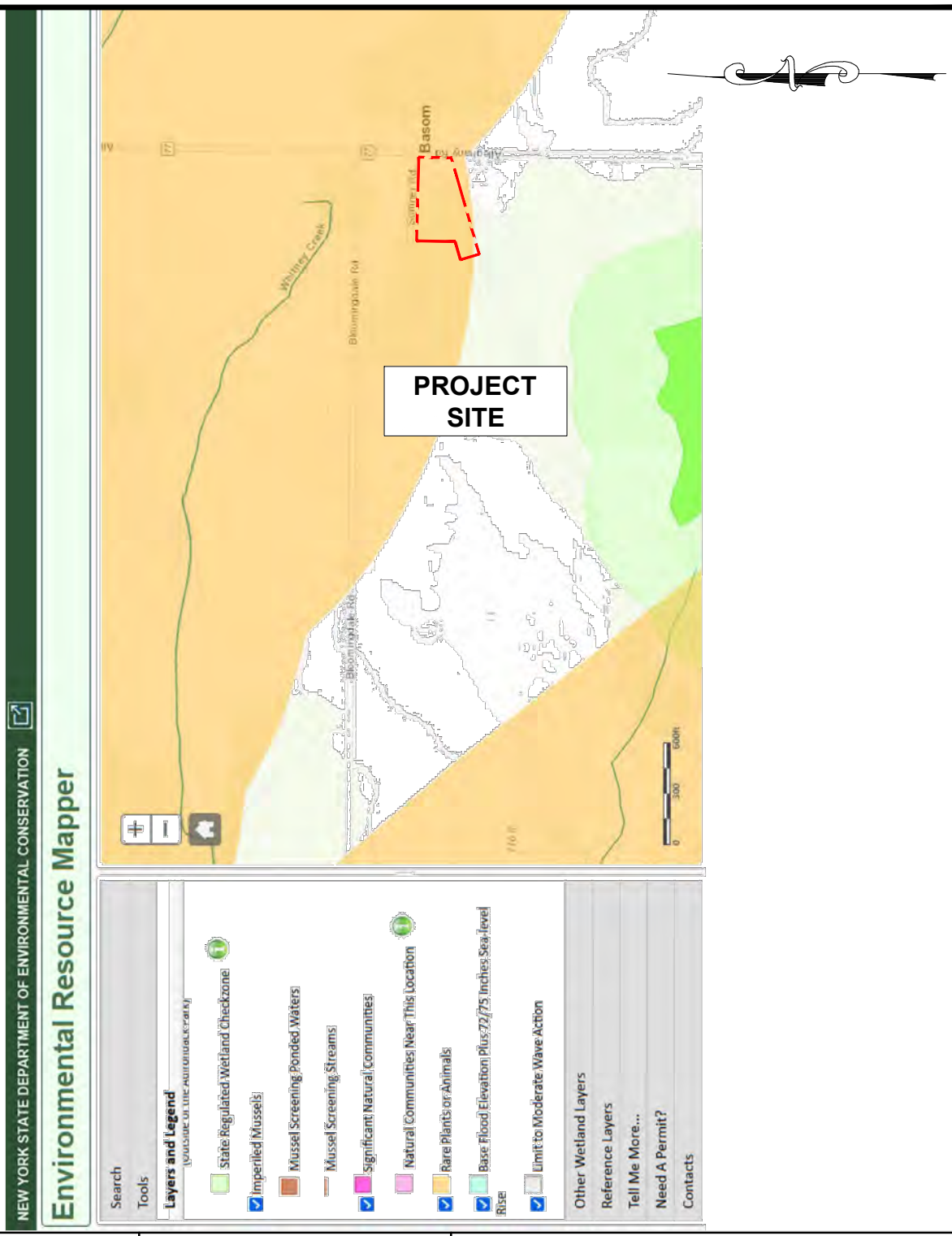
7174 Alleghany Road

Town of Alabama
Genesee County, NY

Prepared for:
The Broadway Group, LLC

Drawn by: JAM	WMB Geologic & Engineering Services, DPC 284 Route 17C, Waverly, NY 14892 607-565-8800
Check by: DYM	
Date: 06/28/2023	
Revision:	

WMB GEOLOGIC & ENGINEERING SERVICES, DPC



Map References:
This exhibit is prepared based on a reproduction of the NYSDEC Environmental Resource Mapper

FIGURE H2
ENVIRONMENTAL RESOURCES MAP

7174 ALLEGHANY ROAD

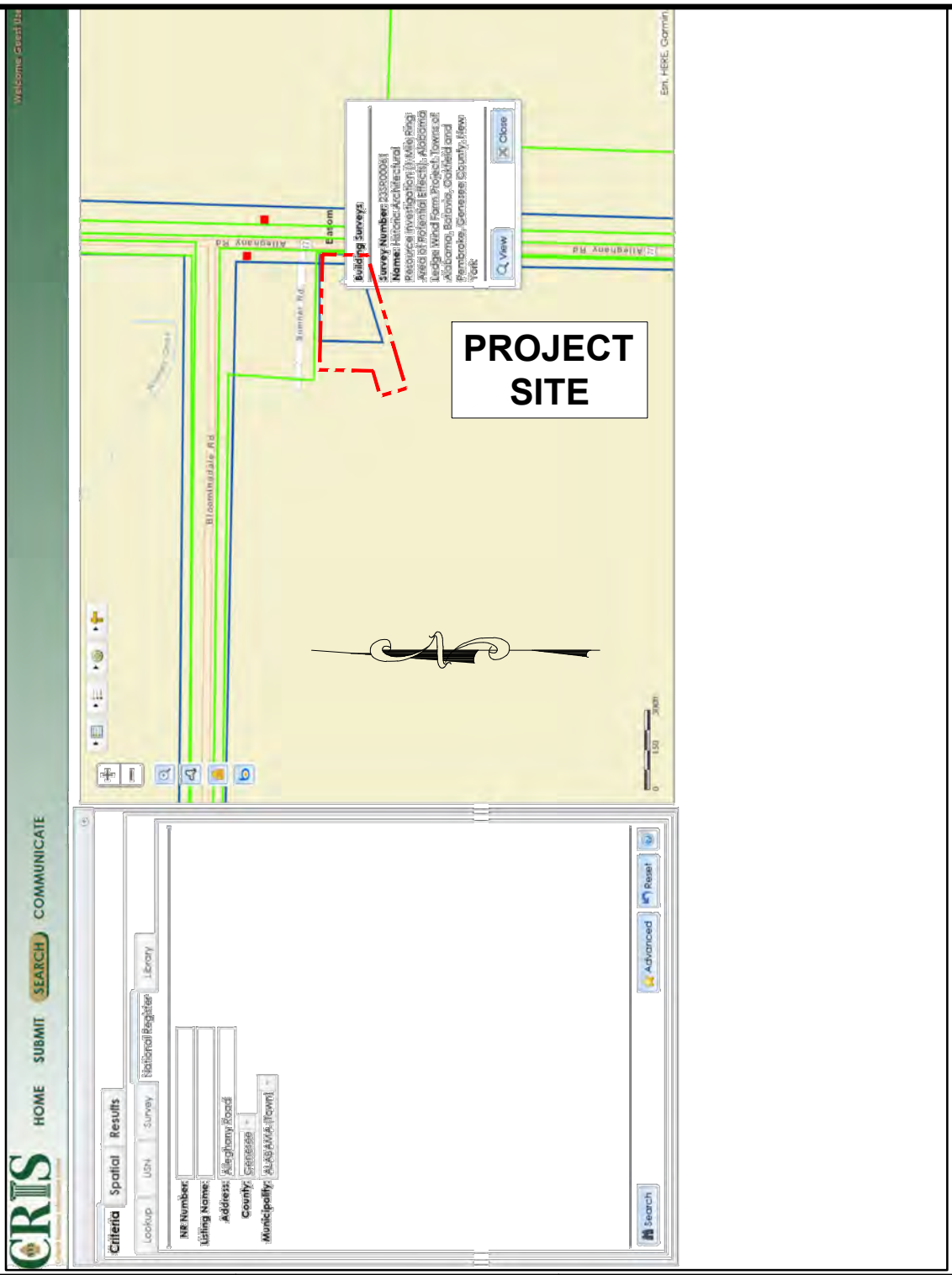
Town of Alabama
Genesee County, NY

0 400 800
FEET
1 in = 800 ft

Prepared for:
The Broadway Group, LLC

Drawn by: JAM	WMB Geologic & Engineering Services, DPC 284 Route 17C Waverly, NY 14892 607-565-8800
Check by: DWY	
Date: 06/28/2023	
Revision:	

WMB GEOLOGIC & ENGINEERING SERVICES, DPC



Map References:
This exhibit is prepared based on a reproduction of the NYSDEC CRIS Mapper.

FIGURE H3
CULTURAL RESOURCES MAP

0 2500 5000
FEET
1 in = 2500 ft

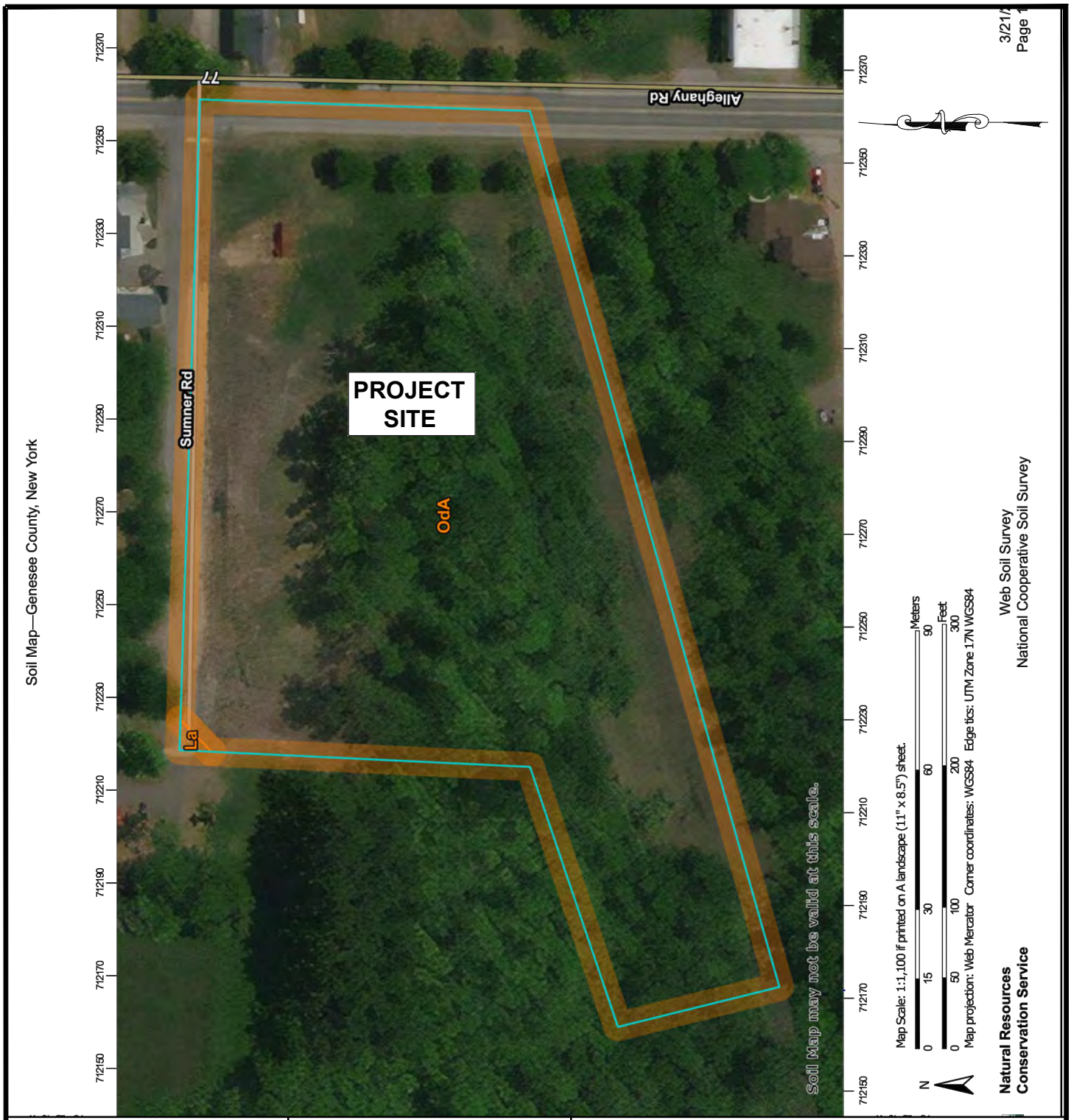
7174 ALLEGHANY ROAD

Town of Alabama
Genesee County, NY

Prepared for:
The Broadway Group, LLC

Drawn by: JAM	WMB Geologic & Engineering Services, DPC 284 Route 17C Waverly, NY 14892 607-565-8800
Check by: DWY	
Date: 06/28/2023	
Revision:	

WMB GEOLOGIC & ENGINEERING SERVICES, DPC



Map References:
This exhibit is prepared based on a reproduction of the NRCS Web Soil Survey.

FIGURE H4
SOILS MAP

0 100 200
FEET
1 in = 100 ft

7174 ALLEGHANY ROAD

Town of Alabama
Genesee County, NY

Prepared for:
The Broadway Group, LLC

Drawn by: JAM	WMB Geologic & Engineering Services, DPC 284 Route 17C Waverly, NY 14892 607-565-8800
Check by: DWY	
Date: 06/28/2023	
Revision:	

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

SUMNER ROAD

ALLEGHANY ROAD (N.Y.S. ROUTE 77)

SITE SOILS:
OdA - ODESSA SILT LOAM, 0-3%
HYDROLOGIC SOIL GROUP - D

DESIGN POINT 1

PREDEVELOPMENT DRAINAGE PATH

EXISTING TREE LINE (TYPICAL)

PROPERTY LINE (TYPICAL)

CONCRETE GUTTER

NO PARKING

40 MPH

CONCRETE GUTTER

PREDEVELOPMENT DRAINAGE AREA
138,673 SF (3.183 ACRES)
CN = 80.0
Tc = 24.9 MINUTES
1 YEAR FLOW = 1.38 CFS
1 YEAR VOLUME = 0.118 ACRE-FEET

PRE DRAINAGE MAP
SCALE: 1" = 20'
0' 10' 20' 30' 40'

NO.	DATE	DESCRIPTION	INT.
0	2023-04-14	INITIAL SUBMISSION	DWY

NOTICE

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DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID:	DRAWN:
21-274.02-DY	JAM
DATE:	DESIGN:
2023-04-14	DWY
SCALE:	CHECKED:
AS NOTED	DWY

PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

PREDEVELOPMENT DRAINAGE MAP

PLAN STATUS:	SHEET NUMBER:
DESIGN	H5

SUMNER ROAD

ALLEGHANY ROAD (N.Y.S. ROUTE 77)

SITE SOILS:
OdA - ODESSA SILT LOAM, 0-3%
HYDROLOGIC SOIL GROUP - D

POSTDEVELOPMENT DRAINAGE PATH

DESIGN POINT 1

EXISTING TREE LINE (TYPICAL)

PROPERTY LINE (TYPICAL)

CONCRETE GUTTER

NO PARKING

40 MPH

CONCRETE GUTTER

POSTDEVELOPMENT DRAINAGE AREA
138,673 SF (3.183 ACRES)
CN = 85.0
Tc = 26.0 MINUTES
1 YEAR FLOW = 2.10 CFS
1 YEAR VOLUME = 0.173 ACRE-FEET

POST DRAINAGE MAP
SCALE: 1" = 20'
0' 10' 20' 30' 40'

NO.	DATE	DESCRIPTION	INT.
0	2023-04-14	INITIAL SUBMISSION	DWY

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DEVELOPER:

The Broadway Group
Commercial Real Estate Development

THE BROADWAY GROUP, LLC
216 WESTSIDE SQUARE
HUNTSVILLE, AL 35801

SEAL OF PROFESSIONAL:

DESIGN PROFESSIONAL FIRM:

WMB GEOLOGIC & ENGINEERING SERVICES, DPC

WMB GEOLOGIC & ENGINEERING SERVICES, DPC
284 ROUTE 17C
WAVERLY, NY 14892
607-565-9800

PROJECT ID:	DRAWN:
21-274.02-DY	JAM
DATE:	DESIGN:
2023-04-14	DWY
SCALE:	CHECKED:
AS NOTED	DWY

PROJECT:

10,566 SF RETAIL BUILDING
LOCATED AT
7174 ALLEGHANY ROAD
TOWN OF ALABAMA
GENESEE COUNTY, NY

DRAWING TITLE:

POSTDEVELOPMENT DRAINAGE MAP

PLAN STATUS:	SHEET NUMBER:
DESIGN	H6

APPENDIX I
SOIL TESTING DATA

Exploration Plan with Project Overlay

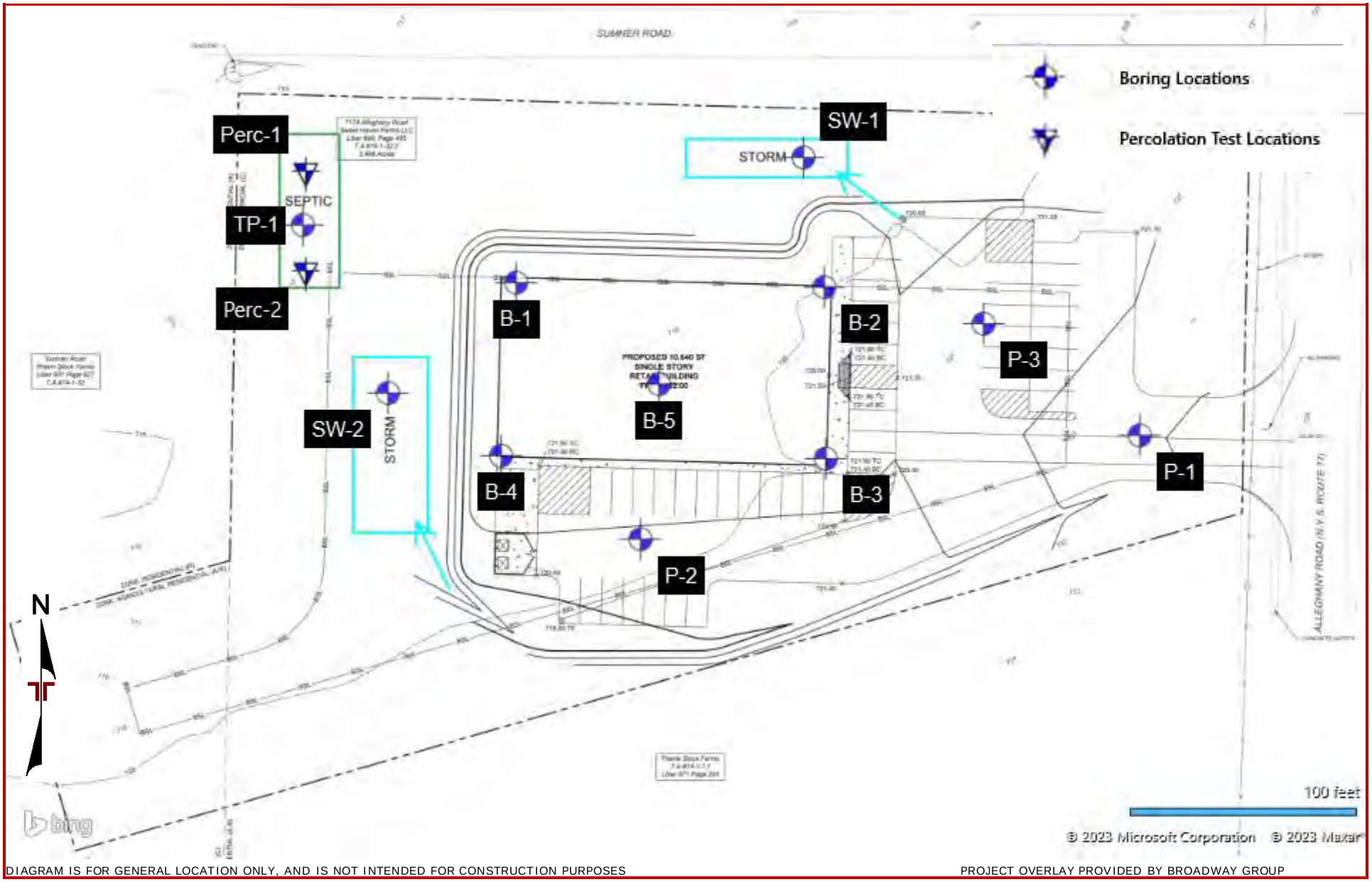

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

PROJECT OVERLAY PROVIDED BY BROADWAY GROUP

Dollar General - Basom
7174 Alleghany Road | Basom, New York
Terracon Project No. J5235080

15 Marway Cir, Ste 2B
Rochester, NY

Test Pit Log No. TP-1

Location: See Exploration Plan

Latitude: 43.0661° Longitude: -78.3935°

Model Layer	Graphic Log	Depth (Ft.)	Elevation: 717 (Ft.) +/-	Depth (Ft.)	Water Level Observations	Sample Type
1		0.3	**TOPSOIL** 716.7			
2		1.3	**FILL - SANDY GRAVEL WITH ASPHALT MILLINGS**, black 715.7			
3		3.0	**SILTY SAND (SM)**, brown 714	5		
		7.0	**SILTY CLAY (CL-ML)**, reddish brown 710			
			Test Pit Terminated at 7 Feet			

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Water Level Observations
None encountered upon completion of excavating

Excavator
Trackhoe

Operator
J. Jones

Logged by
B. Pilarski

Test Pit Started
04-05-2023

Test Pit Completed
04-05-2023

Notes
Elevation Reference: Elevations were interpolated from a topographic site plan.

Advancement Method
Excavator Bucket

Abandonment Method
Test Pit backfilled with excavated soils

NEW YORK STATE DEPARTMENT OF HEALTH
Data Bureau of Water Supply Protection

Percolation Test Data

(see instructions on reverse side)

Development Site: 7174 Alleghany Rd. **(T/V/C):** Basom, NY **County:** Genesee

Date: 5/15/2023 **Tests Conducted By:** Blake Pilarski

Weather Conditions: Sunny, 62 degrees F

Test Hole No.	Test Hole Depth (inches)	Lot No.	Soil Profile Description and Groundwater Depth (if identified)	Presoaking Date & Time	Time	Percolation Test					
						1	2	3	4	5	6
Perc-1	26		4” Topsoil underlain by sandy gravel with asphalt millings (fill) to a depth of 16”. This was underlain by silty clay (CL-ML) soil to a depth of 26”	5/12/2023 1200 hrs	**End**	1300	1400	1500	1600		
					Begin	1200	1300	1400	1500		
					Result	No Drop	No Drop	No Drop	No Drop		
Perc-2	28		4” Topsoil underlain by sandy gravel with asphalt millings (fill) to a depth of 14”. This was underlain by silty clay (CL-ML) soil to a depth of 24”, then underlain by sandy silty clay (CL-ML) to a depth of 28”	5/12/2023 1200 hrs	**End**	1300	1400	1500	1600		
					Begin	1200	1300	1400	1500		
					Result	.25” drop	.25” drop	.25” drop	.25” drop		

Begin time, end time, and result in minutes for a water elevation change from 6" to 5" above the bottom of the test hole.

Notes:

Percolation test Perc-1 had presoak water present at a depth of 6” in the hole at the start of 5/15.

INFILTRATION TEST DATA SUMMARY

Project:	Dollar General - Basom	**Project No.:**	J5235080
Weather:	Sunny	**Tester :**	Blake Pilarski
Presoak Date:	5/12/2023	**Test Date:**	5/15/2023

Test Location	Test Depth	Soil Classification	Trial Number	Water Drop (inches)	Elapsed Time (hours)	Infiltration Rate (inches/hour)
Near SW-1	5	Silty Clay with Sand (CL-ML)	1	0	1	0
			2	0	1	0
			3	0	1	0
			4	0	1	0
			Average infiltration rate for the four trials was 0 inches per hour. Infiltration rate of the final trial was 0 inches per hour.			
Near SW-2	5	Silty Clay with Sand (CL-ML)	1	0.5	1	0.5
			2	0.5	1	0.5
			3	0.25	1	0.25
			4	0.25	1	0.25
			Average infiltration rate for the four trials was 0.3 inches per hour. Infiltration rate of the final trial was 0.25 inches per hour.			

Testing was conducted in general accordance with Appendix D of the New York State Storm Water Management Design Manual.

APPENDIX J

PRE-DEVELOPMENT STORMWATER MODELING

NOAA Atlas 14, Volume 10, Version 3
Location name: Basom, New York, USA*
Latitude: 43.0653°, Longitude: -78.3912°
Elevation: 725 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.269** (0.205-0.351)	**0.329** (0.250-0.430)	**0.427** (0.325-0.560)	**0.508** (0.384-0.667)	**0.619** (0.456-0.846)	**0.702** (0.509-0.977)	**0.791** (0.561-1.14)	**0.898** (0.601-1.30)	**1.06** (0.684-1.57)	**1.20** (0.757-1.80)
10-min	**0.381** (0.290-0.498)	**0.466** (0.355-0.609)	**0.604** (0.459-0.793)	**0.719** (0.543-0.946)	**0.877** (0.646-1.20)	**0.994** (0.721-1.38)	**1.12** (0.795-1.61)	**1.27** (0.850-1.84)	**1.50** (0.969-2.22)	**1.69** (1.07-2.55)
15-min	**0.448** (0.342-0.585)	**0.548** (0.417-0.716)	**0.711** (0.540-0.931)	**0.846** (0.639-1.11)	**1.03** (0.760-1.41)	**1.17** (0.848-1.63)	**1.32** (0.935-1.90)	**1.50** (1.00-2.16)	**1.76** (1.14-2.62)	**1.99** (1.26-3.00)
30-min	**0.619** (0.472-0.808)	**0.757** (0.576-0.989)	**0.982** (0.746-1.29)	**1.17** (0.883-1.54)	**1.43** (1.05-1.95)	**1.62** (1.17-2.25)	**1.82** (1.29-2.62)	**2.07** (1.38-2.99)	**2.44** (1.58-3.61)	**2.75** (1.74-4.14)
60-min	**0.789** (0.602-1.03)	**0.965** (0.735-1.26)	**1.25** (0.952-1.64)	**1.49** (1.13-1.96)	**1.82** (1.34-2.49)	**2.06** (1.50-2.87)	**2.33** (1.65-3.34)	**2.64** (1.76-3.81)	**3.11** (2.01-4.61)	**3.51** (2.22-5.28)
2-hr	**0.981** (0.754-1.27)	**1.19** (0.917-1.54)	**1.54** (1.18-2.00)	**1.83** (1.39-2.38)	**2.22** (1.65-3.01)	**2.52** (1.84-3.47)	**2.84** (2.02-4.03)	**3.21** (2.16-4.59)	**3.76** (2.44-5.52)	**4.23** (2.69-6.30)
3-hr	**1.10** (0.853-1.42)	**1.34** (1.03-1.72)	**1.72** (1.32-2.22)	**2.04** (1.56-2.64)	**2.47** (1.84-3.32)	**2.80** (2.05-3.83)	**3.15** (2.25-4.44)	**3.55** (2.40-5.05)	**4.16** (2.71-6.07)	**4.67** (2.98-6.92)
6-hr	**1.34** (1.04-1.70)	**1.61** (1.25-2.05)	**2.05** (1.60-2.63)	**2.42** (1.87-3.11)	**2.93** (2.20-3.91)	**3.31** (2.44-4.49)	**3.72** (2.68-5.20)	**4.20** (2.85-5.91)	**4.90** (3.21-7.09)	**5.50** (3.53-8.07)
12-hr	**1.60** (1.26-2.02)	**1.91** (1.50-2.42)	**2.43** (1.90-3.07)	**2.85** (2.22-3.63)	**3.44** (2.60-4.53)	**3.87** (2.88-5.20)	**4.34** (3.15-6.01)	**4.89** (3.34-6.82)	**5.71** (3.77-8.17)	**6.41** (4.13-9.30)
24-hr	**1.90** (1.50-2.37)	**2.24** (1.78-2.80)	**2.80** (2.22-3.52)	**3.27** (2.57-4.12)	**3.92** (2.99-5.11)	**4.40** (3.29-5.83)	**4.91** (3.58-6.72)	**5.51** (3.79-7.61)	**6.40** (4.24-9.07)	**7.15** (4.63-10.3)
2-day	**2.24** (1.79-2.77)	**2.60** (2.08-3.22)	**3.18** (2.54-3.95)	**3.67** (2.91-4.58)	**4.34** (3.34-5.59)	**4.84** (3.65-6.34)	**5.37** (3.93-7.25)	**5.98** (4.14-8.16)	**6.86** (4.58-9.62)	**7.59** (4.94-10.8)
3-day	**2.49** (2.01-3.07)	**2.86** (2.30-3.52)	**3.45** (2.77-4.27)	**3.95** (3.15-4.90)	**4.63** (3.58-5.93)	**5.14** (3.89-6.69)	**5.68** (4.17-7.60)	**6.29** (4.38-8.54)	**7.17** (4.80-9.98)	**7.89** (5.15-11.2)
4-day	**2.71** (2.19-3.32)	**3.08** (2.49-3.78)	**3.69** (2.97-4.54)	**4.20** (3.36-5.18)	**4.89** (3.79-6.23)	**5.42** (4.11-7.01)	**5.97** (4.39-7.94)	**6.58** (4.60-8.90)	**7.46** (5.01-10.3)	**8.17** (5.35-11.5)
7-day	**3.24** (2.64-3.95)	**3.65** (2.97-4.45)	**4.32** (3.50-5.28)	**4.88** (3.93-5.98)	**5.64** (4.40-7.11)	**6.22** (4.74-7.96)	**6.82** (5.02-8.94)	**7.45** (5.23-9.98)	**8.32** (5.62-11.4)	**9.00** (5.92-12.6)
10-day	**3.75** (3.07-4.53)	**4.19** (3.43-5.08)	**4.92** (4.01-5.97)	**5.52** (4.48-6.74)	**6.36** (4.97-7.96)	**7.00** (5.35-8.88)	**7.64** (5.63-9.93)	**8.30** (5.85-11.1)	**9.18** (6.22-12.6)	**9.86** (6.50-13.7)
20-day	**5.28** (4.36-6.32)	**5.82** (4.81-6.98)	**6.72** (5.53-8.08)	**7.46** (6.10-9.01)	**8.49** (6.69-10.5)	**9.28** (7.14-11.6)	**10.1** (7.46-12.9)	**10.8** (7.70-14.3)	**11.8** (8.06-16.0)	**12.5** (8.31-17.2)
30-day	**6.57** (5.46-7.82)	**7.20** (5.98-8.58)	**8.22** (6.80-9.82)	**9.07** (7.46-10.9)	**10.2** (8.12-12.6)	**11.2** (8.62-13.9)	**12.0** (8.95-15.3)	**12.9** (9.20-16.9)	**14.0** (9.56-18.8)	**14.7** (9.80-20.1)
45-day	**8.20** (6.86-9.71)	**8.92** (7.45-10.6)	**10.1** (8.40-12.0)	**11.1** (9.15-13.2)	**12.4** (9.88-15.1)	**13.5** (10.5-16.6)	**14.5** (10.8-18.3)	**15.4** (11.1-20.1)	**16.6** (11.4-22.2)	**17.4** (11.6-23.6)
60-day	**9.59** (8.05-11.3)	**10.4** (8.70-12.2)	**11.7** (9.75-13.8)	**12.7** (10.6-15.1)	**14.2** (11.4-17.3)	**15.4** (12.0-18.9)	**16.5** (12.3-20.7)	**17.5** (12.6-22.7)	**18.7** (12.9-24.9)	**19.6** (13.1-26.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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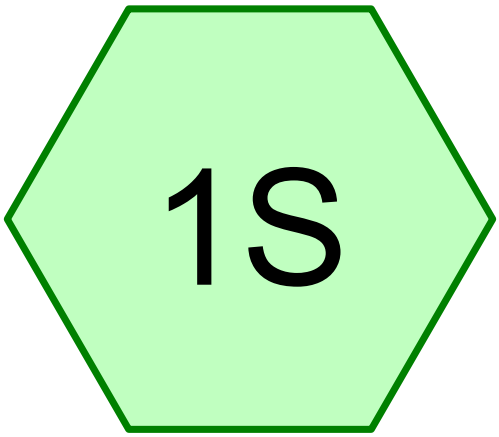
PF graphical



Predevelopment

Subcat Reach Pond Link

Routing Diagram for pre
Prepared by Moody And Associates, Inc., Printed 6/29/2023

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	1.90	2
2	10-year	Type II 24-hr		Default	24.00	1	3.27	2
3	100-year	Type II 24-hr		Default	24.00	1	4.91	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.095	98	Paved parking, HSG D (1S)
3.088	79	Woods/grass comb., Good, HSG D (1S)
3.183	**80**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
3.183	HSG D	1S
0.000	Other	
3.183		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.095	0.000	0.095	Paved parking	1S
0.000	0.000	0.000	3.088	0.000	3.088	Woods/grass comb., Good	1S
0.000	**0.000**	**0.000**	**3.183**	**0.000**	**3.183**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Predevelopment Runoff Area=3.183 ac 2.98% Impervious Runoff Depth>0.44"
Flow Length=495' Tc=24.9 min CN=80 Runoff=1.38 cfs 0.118 af

Total Runoff Area = 3.183 ac Runoff Volume = 0.118 af Average Runoff Depth = 0.44"
97.02% Pervious = 3.088 ac 2.98% Impervious = 0.095 ac

Summary for Subcatchment 1S: Predevelopment

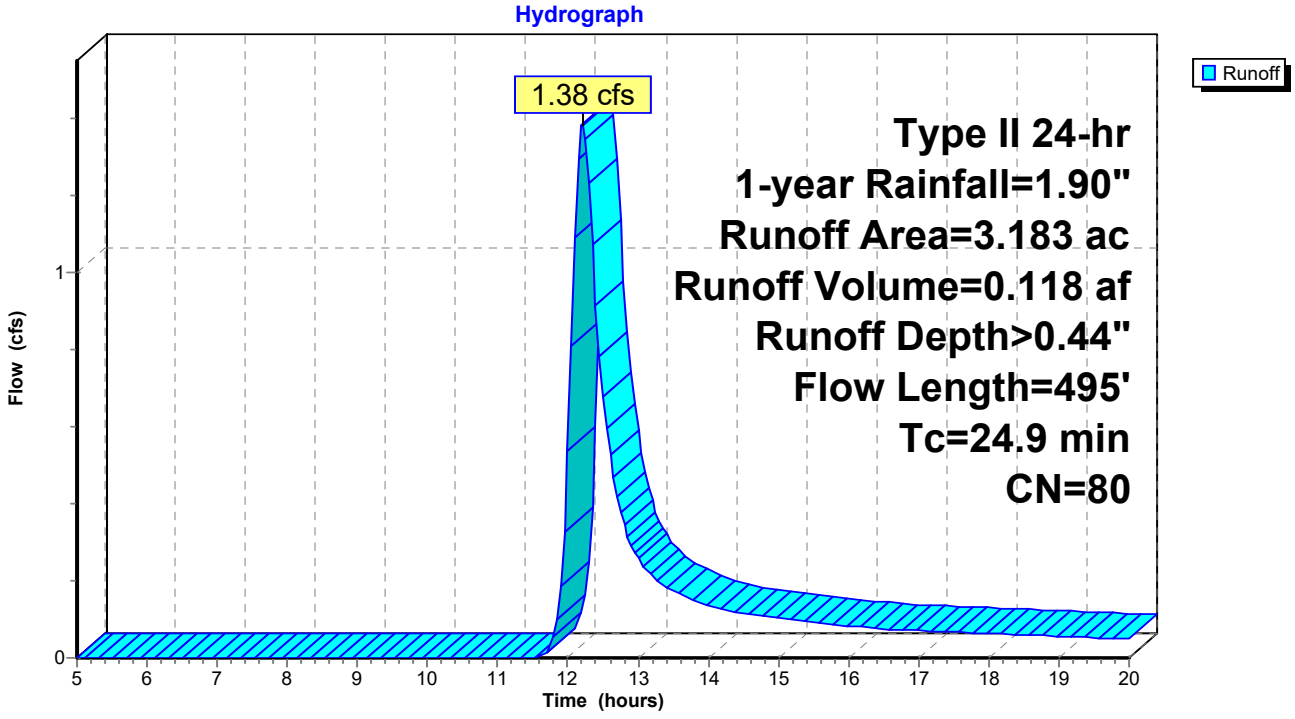
Runoff = 1.38 cfs @ 12.21 hrs, Volume= 0.118 af, Depth> 0.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=1.90"

Area (ac)	CN	Description
0.095	98	Paved parking, HSG D
3.088	79	Woods/grass comb., Good, HSG D
3.183	80	Weighted Average
3.088		97.02% Pervious Area
0.095		2.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.2	100	0.0267	0.11		**Sheet Flow, front yard** Grass: Dense n= 0.240 P2= 2.24"
9.7	395	0.0185	0.68		**Shallow Concentrated Flow, rear yard** Woodland Kv= 5.0 fps
24.9	495	Total			

Subcatchment 1S: Predevelopment



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Predevelopment Runoff Area=3.183 ac 2.98% Impervious Runoff Depth>1.32"
Flow Length=495' Tc=24.9 min CN=80 Runoff=4.45 cfs 0.351 af

Total Runoff Area = 3.183 ac Runoff Volume = 0.351 af Average Runoff Depth = 1.32"
97.02% Pervious = 3.088 ac 2.98% Impervious = 0.095 ac

Summary for Subcatchment 1S: Predevelopment

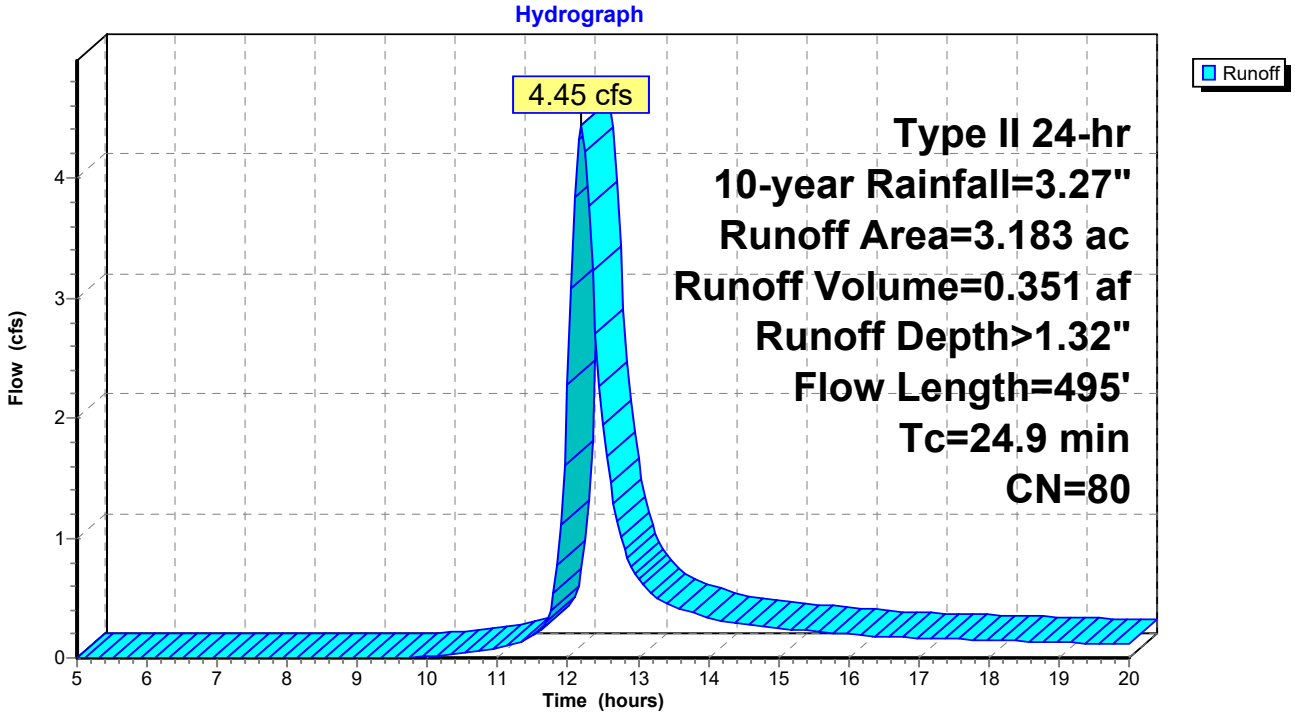
Runoff = 4.45 cfs @ 12.19 hrs, Volume= 0.351 af, Depth> 1.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.27"

Area (ac)	CN	Description
0.095	98	Paved parking, HSG D
3.088	79	Woods/grass comb., Good, HSG D
3.183	80	Weighted Average
3.088		97.02% Pervious Area
0.095		2.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.2	100	0.0267	0.11		**Sheet Flow, front yard** Grass: Dense n= 0.240 P2= 2.24"
9.7	395	0.0185	0.68		**Shallow Concentrated Flow, rear yard** Woodland Kv= 5.0 fps
24.9	495	Total			

Subcatchment 1S: Predevelopment



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Predevelopment Runoff Area=3.183 ac 2.98% Impervious Runoff Depth>2.59"
Flow Length=495' Tc=24.9 min CN=80 Runoff=8.71 cfs 0.687 af

Total Runoff Area = 3.183 ac Runoff Volume = 0.687 af Average Runoff Depth = 2.59"
97.02% Pervious = 3.088 ac 2.98% Impervious = 0.095 ac

Summary for Subcatchment 1S: Predevelopment

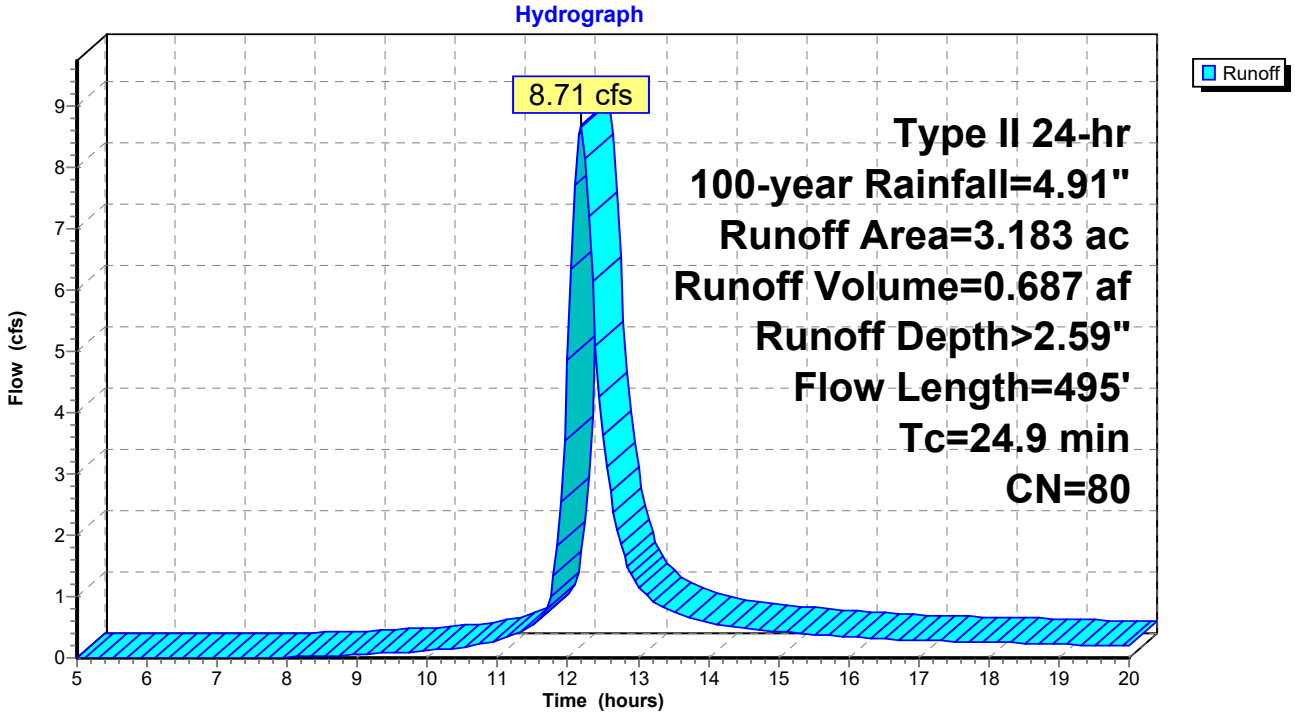
Runoff = 8.71 cfs @ 12.18 hrs, Volume= 0.687 af, Depth> 2.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=4.91"

Area (ac)	CN	Description
0.095	98	Paved parking, HSG D
3.088	79	Woods/grass comb., Good, HSG D
3.183	80	Weighted Average
3.088		97.02% Pervious Area
0.095		2.98% Impervious Area

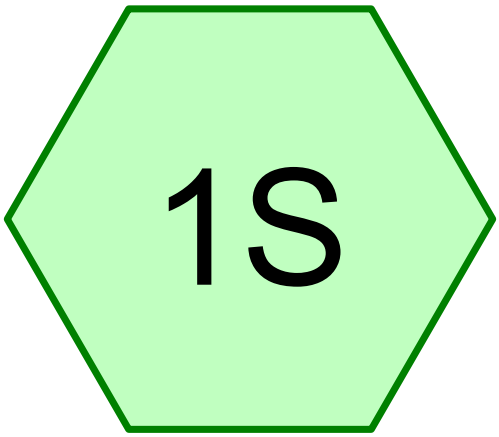
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.2	100	0.0267	0.11		**Sheet Flow, front yard** Grass: Dense n= 0.240 P2= 2.24"
9.7	395	0.0185	0.68		**Shallow Concentrated Flow, rear yard** Woodland Kv= 5.0 fps
24.9	495	Total			

Subcatchment 1S: Predevelopment



APPENDIX K

POST-DEVELOPMENT STORMWATER MODELING



Postdevelopment

Subcat Reach Pond Link

Routing Diagram for post
Prepared by Moody And Associates, Inc., Printed 6/29/2023

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-year	Type II 24-hr		Default	24.00	1	1.90	2
2	10-year	Type II 24-hr		Default	24.00	1	3.27	2
3	100-year	Type II 24-hr		Default	24.00	1	4.91	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.083	98	Paved parking, HSG D (1S)
2.100	79	Woods/grass comb., Good, HSG D (1S)
3.183	**85**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
3.183	HSG D	1S
0.000	Other	
3.183		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	1.083	0.000	1.083	Paved parking	1S
0.000	0.000	0.000	2.100	0.000	2.100	Woods/grass comb., Good	1S
0.000	**0.000**	**0.000**	**3.183**	**0.000**	**3.183**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Postdevelopment Runoff Area=3.183 ac 34.02% Impervious Runoff Depth>0.65"
Flow Length=507' Tc=26.0 min CN=85 Runoff=2.10 cfs 0.173 af

Total Runoff Area = 3.183 ac Runoff Volume = 0.173 af Average Runoff Depth = 0.65"
65.98% Pervious = 2.100 ac 34.02% Impervious = 1.083 ac

Summary for Subcatchment 1S: Postdevelopment

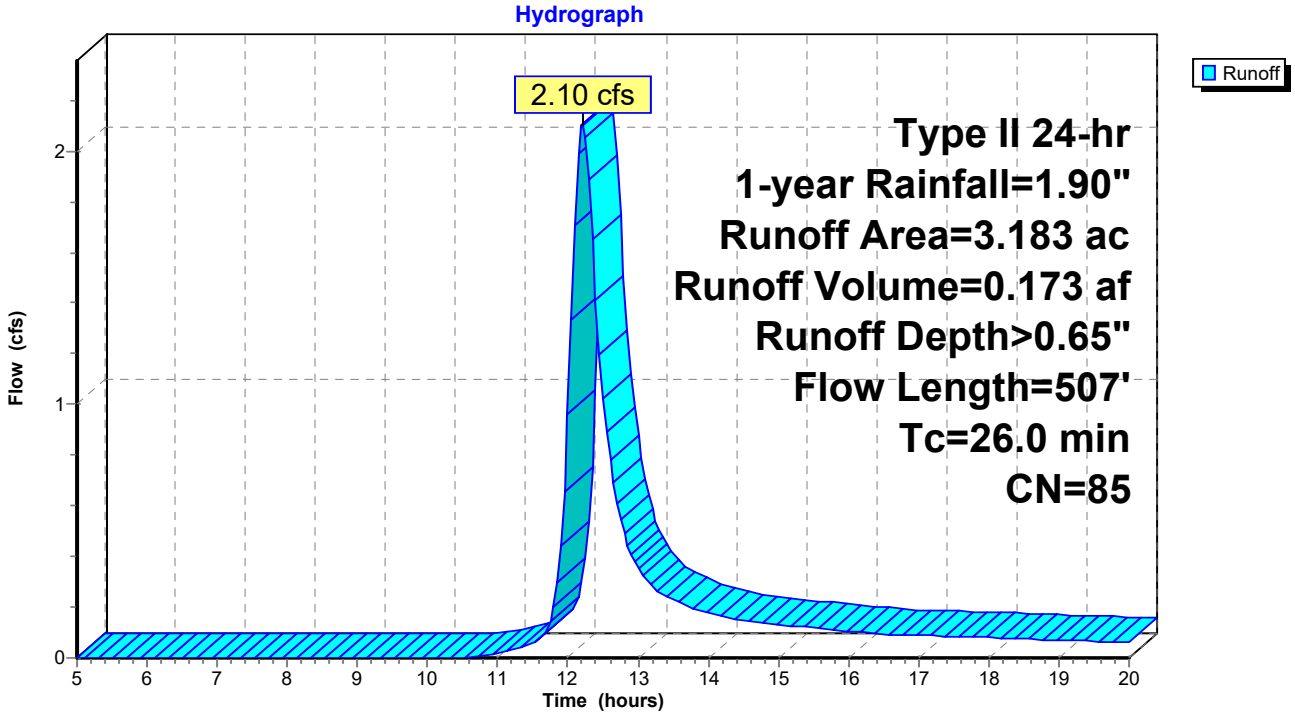
Runoff = 2.10 cfs @ 12.21 hrs, Volume= 0.173 af, Depth> 0.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-year Rainfall=1.90"

Area (ac)	CN	Description
1.083	98	Paved parking, HSG D
2.100	79	Woods/grass comb., Good, HSG D
3.183	85	Weighted Average
2.100		65.98% Pervious Area
1.083		34.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	100	0.0160	0.09		**Sheet Flow, front yard** Grass: Dense n= 0.240 P2= 2.24"
7.4	407	0.0173	0.92		**Shallow Concentrated Flow, rear yard** Short Grass Pasture Kv= 7.0 fps
26.0	507	Total			

Subcatchment 1S: Postdevelopment



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Postdevelopment Runoff Area=3.183 ac 34.02% Impervious Runoff Depth>1.67"
Flow Length=507' Tc=26.0 min CN=85 Runoff=5.48 cfs 0.443 af

Total Runoff Area = 3.183 ac Runoff Volume = 0.443 af Average Runoff Depth = 1.67"
65.98% Pervious = 2.100 ac 34.02% Impervious = 1.083 ac

Summary for Subcatchment 1S: Postdevelopment

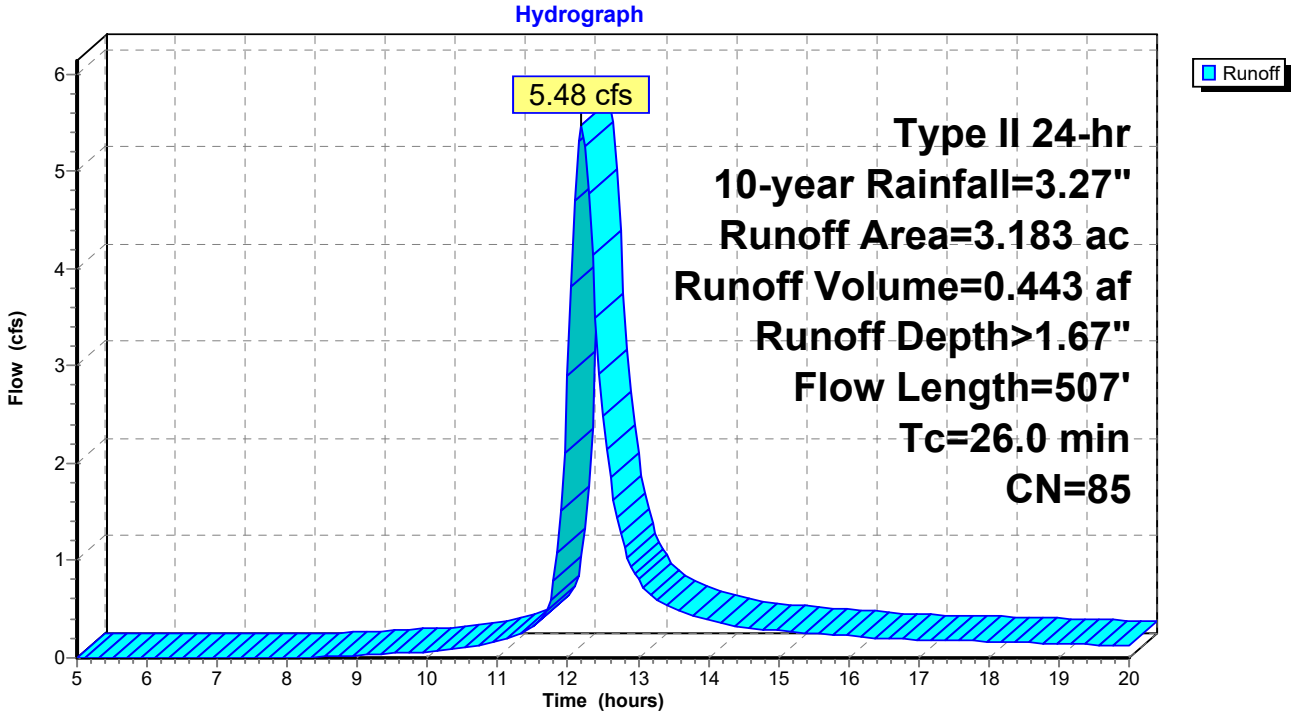
Runoff = 5.48 cfs @ 12.20 hrs, Volume= 0.443 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-year Rainfall=3.27"

Area (ac)	CN	Description
1.083	98	Paved parking, HSG D
2.100	79	Woods/grass comb., Good, HSG D
3.183	85	Weighted Average
2.100		65.98% Pervious Area
1.083		34.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	100	0.0160	0.09		**Sheet Flow, front yard** Grass: Dense n= 0.240 P2= 2.24"
7.4	407	0.0173	0.92		**Shallow Concentrated Flow, rear yard** Short Grass Pasture Kv= 7.0 fps
26.0	507	Total			

Subcatchment 1S: Postdevelopment



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Postdevelopment Runoff Area=3.183 ac 34.02% Impervious Runoff Depth>3.05"
Flow Length=507' Tc=26.0 min CN=85 Runoff=9.86 cfs 0.808 af

Total Runoff Area = 3.183 ac Runoff Volume = 0.808 af Average Runoff Depth = 3.05"
65.98% Pervious = 2.100 ac 34.02% Impervious = 1.083 ac

Summary for Subcatchment 1S: Postdevelopment

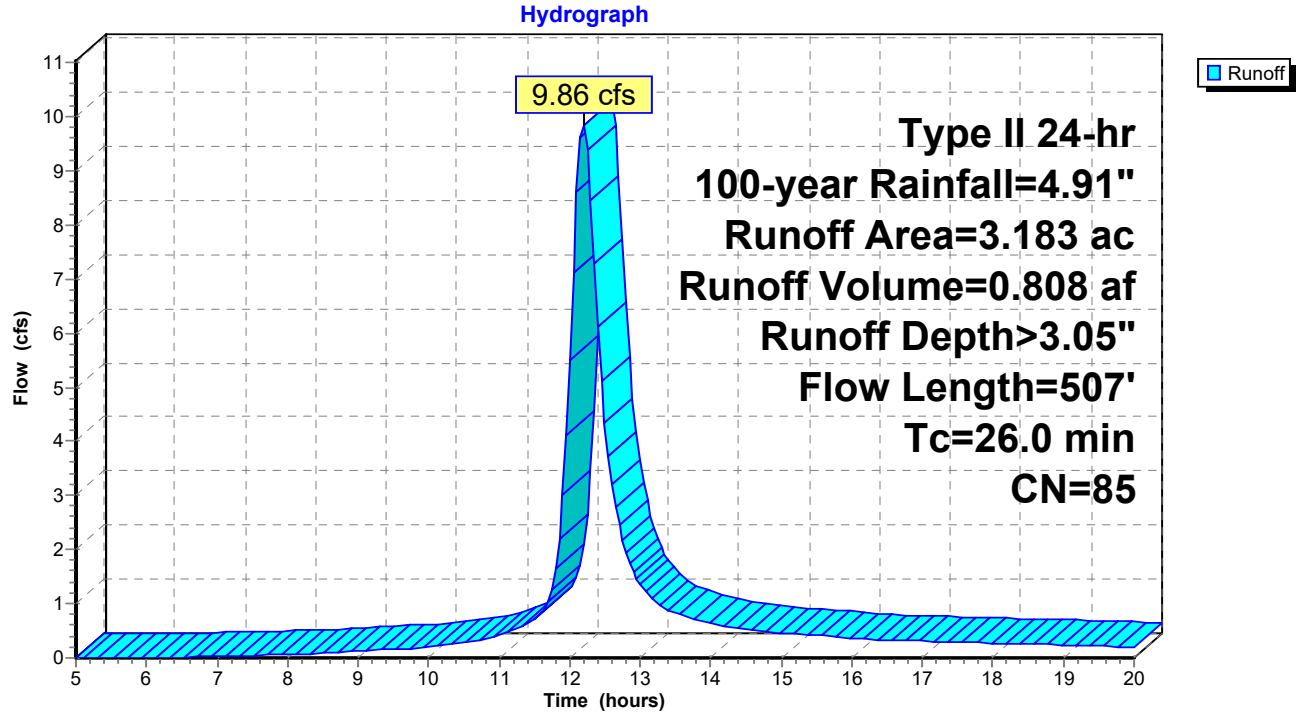
Runoff = 9.86 cfs @ 12.19 hrs, Volume= 0.808 af, Depth> 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-year Rainfall=4.91"

Area (ac)	CN	Description
1.083	98	Paved parking, HSG D
2.100	79	Woods/grass comb., Good, HSG D
3.183	85	Weighted Average
2.100		65.98% Pervious Area
1.083		34.02% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	100	0.0160	0.09		**Sheet Flow, front yard** Grass: Dense n= 0.240 P2= 2.24"
7.4	407	0.0173	0.92		**Shallow Concentrated Flow, rear yard** Short Grass Pasture Kv= 7.0 fps
26.0	507	Total			

Subcatchment 1S: Postdevelopment



APPENDIX L

PROJECT EVALUATION AND DESIGN CALCULATIONS

Version 1.8
Last Updated: 11/09/2015

Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

	Total Area *(Acres)*	**Impervious Area** *(Acres)*	**Percent Impervious** *%*	**Runoff Coefficient Rv**	**WQv** *(ft^3)*		
"<<Initial WQv"	0.75	0.75	100%	0.95	2,573		
Subtract Area	0.00	0.00					
WQv adjusted after Area Reductions	**0.75**	**0.75**	100%	0.95	2,573		
Disconnection of Rooftops		0.00					
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.75	0.75	100%	0.95	**2,573**	**0.06**	**af**
WQv reduced by Area Reduction techniques					0	**0.00**	**af**

Version 1.8
Last Updated: 11/09/2015

Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?.....	No

Design Point:	1	
P=	1.00	*inch*

Manually enter P, Total Area and Impervious Cover.

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	0.49	0.49	100%	0.95	1,690	Bioretention
2	0.26	0.26	100%	0.95	883	Bioretention
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	0.75	0.75	100%	0.95	**2,573**	**Subtotal 1**
Total	0.75	0.75	100%	0.95	**2,573**	**Initial WQv**	**0.06**	**af**

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area *(Acre)*	Contributing Impervious Area *(Acre)*	Notes
Conservation of Natural Areas	0.00	0.00	*minimum 10,000 sf*
Riparian Buffers	0.00	0.00	*maximum contributing length 75 feet to 150 feet*
Filter Strips	0.00	0.00	
Tree Planting	0.00	0.00	*Up to 100 sf directly connected impervious area may be subtracted per tree*
Total	**0.00**	**0.00**	

Recalculate WQv after application of Area Reduction Techniques

Total Water Quality Volume Calculation

WQv(acre-feet) = [(P)(Rv)(A)] /12

All Subcatchments						
Catchment	**Total Area** *(Acres)*	**Impervious Cover** *(Acres)*	**Percent Impervious** *%*	**Runoff Coefficient** *Rv*	**WQv** *(ft^3)*	**Description**
1	0.49	0.49	1.00	0.95	1689.77	Bioretention
2	0.26	0.26	1.00	0.95	883	Bioretention
3						
4						
5						
6						
7						
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30						

Runoff Reduction Volume and Treated volumes						
	Runoff Reduction Techiques/Standard SMPs		**Total Contributing Area**	**Total Contributing Impervious Area**	**WQv Reduced (RRv)**	**WQv Treated**
			(acres)	**(acres)**	**cf**	**cf**
Area/Volume Reduction	Conservation of Natural Areas	RR-1	0.00	0.00		
	Sheetflow to Riparian Buffers/Filter Strips	RR-2	0.00	0.00		
	Tree Planting/Tree Pit	RR-3	0.00	0.00		
	Disconnection of Rooftop Runoff	RR-4		0.00		
	Vegetated Swale	RR-5	0.00	0.00	0	
	Rain Garden	RR-6	0.00	0.00	0	
	Stormwater Planter	RR-7	0.00	0.00	0	
	Rain Barrel/Cistern	RR-8	0.00	0.00	0	
	Porous Pavement	RR-9	0.00	0.00	0	
	Green Roof (Intensive & Extensive)	RR-10	0.00	0.00	0	
Standard SMPs w/RRv Capacity	Infiltration Trench	I-1	0.00	0.00	0	0
	Infiltration Basin	I-2	0.00	0.00	0	0
	Dry Well	I-3	0.00	0.00	0	0
	Underground Infiltration System	I-4				
	Bioretention & Infiltration Bioretention	F-5	0.75	0.75	1046	1526
	Dry swale	O-1	0.00	0.00	0	0
Standard SMPs	Micropool Extended Detention (P-1)	P-1				
	Wet Pond (P-2)	P-2				
	Wet Extended Detention (P-3)	P-3				
	Multiple Pond system (P-4)	P-4				
	Pocket Pond (p-5)	P-5				
	Surface Sand filter (F-1)	F-1				
	Underground Sand filter (F-2)	F-2				
	Perimeter Sand Filter (F-3)	F-3				
	Organic Filter (F-4	F-4				
	Shallow Wetland (W-1)	W-1				
	Extended Detention Wetland (W-2	W-2				
	Pond/Wetland System (W-3)	W-3				
	Pocket Wetland (W-4)	W-4				
	Wet Swale (O-2)	O-2				
Totals by Area Reduction →			0.00	0.00	0	
Totals by Volume Reduction →			0.00	0.00	0	
Totals by Standard SMP w/RRV →			0.75	0.75	1046	1526
Totals by Standard SMP →			0.00	0.00		0
Totals (Area + Volume + all SMPs) →			0.75	0.75	1,046	1,526
	Impervious Cover √	okay				

Minimum RRv

Enter the Soils Data for the site		
Soil Group	Acres	S
A		55%
B		40%
C		30%
D	**3.18**	20%
Total Area	3.183	
Calculate the Minimum RRv		
S =	**0.20**	
Impervious =	0.75	*acre*
Precipitation	1	*in*
Rv	0.95	
Minimum RRv	**515**	***ft3***
	0.01	af

NOI QUESTIONS

#	NOI Question	Reported Value	
		cf	af
28	Total Water Quality Volume (WQv) Required	2573	*0.059*
30	Total RRV Provided	1046	*0.024*
31	Is RRv Provided ≥WQv Required?	No	
32	Minimum RRv	515	*0.012*
32a	Is RRv Provided ≥ Minimum RRv Required?	Yes	
33a	Total WQv Treated	1526	*0.035*
34	Sum of Volume Reduced & Treated	2573	*0.059*
34	Sum of Volume Reduced and Treated	2573	*0.059*
35	Is Sum RRv Provided and WQv Provided ≥WQv Required?	Yes	

Apply Peak Flow Attenuation			
36	Channel Protection	*Cpv*	
37	Overbank	*Qp*	
37	Extreme Flood Control	*Qf*	
	Are Quantity Control requirements met?		

Planning

Practice	Description	Application
Preservation of Undisturbed Areas	Delineate and place into permanent conservation undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain.	Considered & Not Applied
Preservation of Buffers	Define, delineate and preserve naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands.	Considered & Not Applied
Reduction of Clearing and Grading	Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	Considered & Applied
Locating Development in Less Sensitive Areas	Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	Considered & Applied
Open Space Design	Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	Considered & Not Applied
Soil Restoration	Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of post construction practices. ***Treat compacted areas as impervious cover in WQv Calculation Worksheet and modify curve number as specified in Section 5.1.6, page 5-21***	Considered & Not Applied
Roadway Reduction	Minimize roadway widths and lengths to reduce site impervious area	N/A
Sidewalk Reduction	Minimize sidewalk lengths and widths to reduce site impervious area	N/A
Driveway Reduction	Minimize driveway lengths and widths to reduce site impervious area	N/A
Cul-de-sac Reduction	Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	N/A
Building Footprint Reduction	Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	N/A
Parking Reduction	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	N/A

Bioretention Worksheet

(For use on HSG C or D Soils with underdrains)

Af=WQv*(df)/[k*(hf+df)(tf)]

Af	Required Surface Area (ft2)
WQv	Water Quality Volume (ft3)
df	Depth of the Soil Medium (feet)
hf	Average height of water above the planter bed
tf	Volume Through the Filter Media (days)

k — The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor &

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	**Total Area** *(Acres)*	**Impervious Area** *(Acres)*	**Percent Impervious** *%*	**Rv**	**WQv** *(ft^3)*	**Precipitation** *(in)*	**Description**
1	0.49	0.49	1.00	0.95	1689.77	1.00	Bioretention
Enter Impervious Area Reduced by Disconnection of Rooftops		0.00	100%	0.95	1,690	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.						*ft^3*	

Soil Information			
Soil Group	D		
Soil Infiltration Rate	0.50	*in/hour*	*Design as an infiltration bioretention practice*
Using Underdrains?	Yes	*Okay*	

Calculate the Minimum Filter Area				
		Value	Units	Notes
WQv		1,690	*ft^3*	
Enter Depth of Soil Media	*df*	2.5	*ft*	*2.5-4 ft*
Enter Hydraulic Conductivity	*k*	0.5	*ft/day*	
Enter Average Height of Ponding	*hf*	0.5	*ft*	*6 inches max.*
Enter Filter Time	*tf*	2	*days*	
Required Filter Area	***Af***	**1408**	***ft^2***	

Determine Actual Bio-Retention Area			
Filter Width	12	*ft*	
Filter Length	120	*ft*	
Filter Area	1440	*ft^2*	
Actual Volume Provided	1728	*ft^3*	

Determine Runoff Reduction				
Is the Bioretention contributing flow to another practice?			Select Practice	
RRv	691			
RRv applied	**691**	***ft^3***	***This is 40% of the storage provided or WQv whichever is less.***	
Volume Treated	999	*ft^3*	*This is the portion of the WQv that is not reduced in the practice.*	
Volume Directed	0	*ft^3*	This volume is directed another practice	
Sizing √	OK		*Check to be sure Area provided ≥ Af*	

Bioretention Worksheet

(For use on HSG C or D Soils with underdrains)

Af=WQv*(df)/[k*(hf+df)(tf)]

Af	Required Surface Area (ft2)
WQv	Water Quality Volume (ft3)
df	Depth of the Soil Medium (feet)
hf	Average height of water above the planter bed
tf	Volume Through the Filter Media (days)

k — The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor & Schueler, 1996)

Design Point:	1

Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	**Total Area** *(Acres)*	**Impervious Area** *(Acres)*	**Percent Impervious** *%*	**Rv**	**WQv** *(ft^3)*	**Precipitation** *(in)*	**Description**
2	0.26	0.26	1.00	0.95	882.82	1.00	Bioretention
Enter Impervious Area Reduced by Disconnection of Rooftops			100%	0.95	883	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.						*ft^3*	

Soil Information			
Soil Group	D		
Soil Infiltration Rate	0.50	*in/hour*	*Design as an infiltration bioretention practice*
Using Underdrains?	Yes	*Okay*	

Calculate the Minimum Filter Area				
		Value	Units	Notes
WQv		883	*ft^3*	
Enter Depth of Soil Media	*df*	2.5	*ft*	*2.5-4 ft*
Enter Hydraulic Conductivity	*k*	0.5	*ft/day*	
Enter Average Height of Ponding	*hf*	0.5	*ft*	*6 inches max.*
Enter Filter Time	*tf*	2	*days*	
Required Filter Area	***Af***	**736**	***ft^2***	

Determine Actual Bio-Retention Area			
Filter Width	10	*ft*	
Filter Length	74	*ft*	
Filter Area	740	*ft^2*	
Actual Volume Provided	888	*ft^3*	

Determine Runoff Reduction				
Is the Bioretention contributing flow to another practice?			Select Practice	
RRv	355			
RRv applied	**355**	***ft^3***	***This is 40% of the storage provided or WQv whichever is less.***	
Volume Treated	528	*ft^3*	*This is the portion of the WQv that is not reduced in the practice.*	
Volume Directed	0	*ft^3*	This volume is directed another practice	
Sizing √	OK		*Check to be sure Area provided ≥ Af*	

APPENDIX M

DEEP RIPPING AND DECOMPACTION

New York State
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water

Deep-Ripping and Decompaction

April 2008

New York State
Department of Environmental Conservation

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Alternative Stormwater Management
Deep-Ripping and Decompaction

Description

The two-phase practice of 1) “Deep Ripping;” and 2) “Decompaction” (deep subsoiling), of the soil material as a step in the cleanup and restoration/landscaping of a construction site, helps mitigate the physically induced impacts of soil compression; i.e.: soil compaction or the substantial increase in the bulk density of the soil material.

Deep Ripping and Decompaction are key factors which help in restoring soil pore space and permeability for water infiltration. Conversely, the physical actions of cut-and-fill work, land grading, the ongoing movement of construction equipment and the transport of building materials throughout a site alter the architecture and structure of the soil, resulting in: the mixing of layers (horizons) of soil materials, compression of those materials and diminished soil porosity which, if left unchecked, severely impairs the soil’s water holding capacity and vertical drainage (rainfall infiltration), from the surface downward.

In a humid climate region, compaction damage on a site is virtually guaranteed over the duration of a project. Soil in very moist to wet condition when compacted, will have severely reduced permeability. Figure 1 displays the early stage of the deep-ripping phase (Note that all topsoil was stripped prior to construction access, and it remains stockpiled until the next phase – decompaction – is complete). A heavy-duty tractor is pulling a three-shank ripper on the first of several series of incrementally deepening passes through the construction access corridor's densely compressed subsoil material. Figure 2 illustrates the approximate volumetric composition of a loam surface soil when conditions are good for plant growth, with adequate natural pore space for fluctuating moisture conditions.

Fig. 1. A typical deep ripping phase of this practice, during the first in a series of progressively deeper “rips” through severely compressed subsoil.

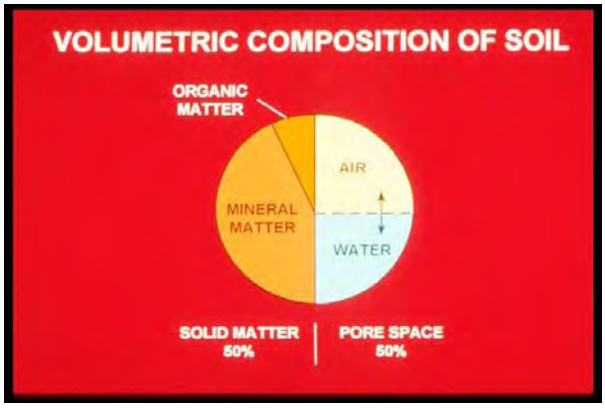

Fig. 2. About 50% of the volume of undisturbed loam surface soil is pore space, when soil is in good condition for plant growth. Brady, 2002.

Recommended Application of Practice

The objective of Deep Ripping and Decompaction is to effectively fracture (vertically and laterallly) through the thickness of the physically compressed subsoil material (see Figure 3), restoring soil porosity and permeability and aiding infiltration to help reduce runoff. Together with topsoil stripping, the "two-phase" practice of Deep Ripping and Decompaction first became established as a "best management practice" through ongoing success on commercial farmlands affected by heavy utility construction right-of-way projects (transmission pipelines and large power lines).

Fig. 3. Construction site with significant compaction of the deep basal till subsoil extends 24 inches below this exposed cut-and-fill work surface.

Soil permeability, soil drainage and cropland productivity were restored. For broader construction application, the two-phase practice of Deep Ripping and Decompaction is best adapted to areas impacted with significant soil compaction, on contiguous open portions of large construction sites and inside long, open construction corridors used as temporary access over the duration of construction. Each mitigation area should have minimal above-and-below-ground obstructions for the easy avoidance and maneuvering of a large tractor and ripping/decompacting implements. Conversely, the complete two-phase practice is not recommended in congested or obstructed areas due to the limitations on tractor and implement movement.

Benefits

Aggressive "deep ripping" through the compressed thickness of exposed subsoil before the replacement/respreading of the topsoil layer, followed by "decompaction," i.e.: "sub-soiling," through the restored topsoil layer down into the subsoil, offers the following benefits:

- Increases the project (larger size) area's direct surface infiltration of rainfall by providing the open site's mitigated soil condition and lowers the demand on concentrated runoff control structures

- Enhances direct groundwater recharge through greater dispersion across and through a broader surface than afforded by some runoff-control structural measures

- Decreases runoff volume generated and provides hydrologic source control

- May be planned for application in feasible open locations either alone or in

conjunction with plans for structural practices (e.g., subsurface drain line or infiltration basin) serving the same or contiguous areas

- Promotes successful long-term revegetation by restoring soil permeability, drainage and water holding capacity for healthy (rather than restricted) root-system development of trees, shrubs and deep rooted ground cover, minimizing plant drowning during wet periods and burnout during dry periods.

Feasibility / Limitations

The effectiveness of Deep Ripping and Decompaction is governed mostly by site factors such as: the original (undisturbed) soil's hydrologic characteristics; the general slope; local weather/timing (soil moisture) for implementation; the space-related freedom of equipment/implement maneuverability (noted above in **Recommended Application of Practice**), and by the proper selection and operation of tractor and implements (explained below in **Design Guidance**). The more notable site-related factors include:

Soil

In the undisturbed condition, each identified soil type comprising a site is grouped into one of four categories of soil hydrology, Hydrologic Soil Group A, B, C or D, determined primarily by a range of characteristics including soil texture, drainage capability when thoroughly wet, and depth to water table. The natural rates of infiltration and transmission of soil-water through the undisturbed soil layers for Group A is "high" with a low runoff potential while soils in Group B are moderate in infiltration and the transmission of soil-water with a moderate runoff potential, depending somewhat on slope. Soils in Group C have slow rates of infiltration and transmission of soil-water and a moderately high runoff potential influenced by soil texture and slope; while soils in Group D have exceptionally slow rates of infiltration and transmission of soil-water, and high runoff potential.

In Figure 4, the profile displays the undisturbed horizons of a soil in Hydrologic Soil Group C and the naturally slow rate of infiltration through the subsoil. The slow rate of infiltration begins immediately below the topsoil horizon (30 cm), due to the limited amount of macro pores, e.g.: natural subsoil fractures, worm holes and root channels. Infiltration after the construction-induced mixing and compression of such subsoil material is virtually absent; but can be restored back to this natural level with the two-phase practice of deep ripping and decompaction, followed by the permanent establishment of an appropriate, deep taproot

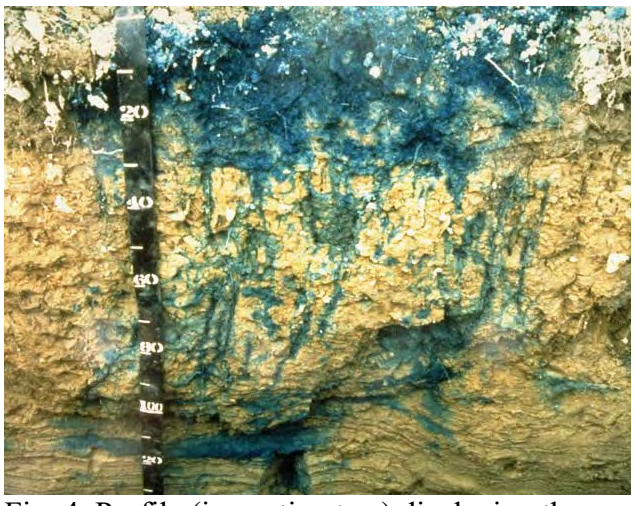

Fig. 4. Profile (in centimeters) displaying the infiltration test result of the natural undisturbed horizons of a soil in Hydrologic Soil Group C.

lawn/ground cover to help maintain the restored subsoil structure. Infiltration after construction-induced mixing and compression of such subsoil material can be notably rehabilitated with the Deep Ripping and Decompaction practice, which prepares the site for the appropriate long-term lawn/ground cover mix including deep taproot plants such as clover, fescue or trefoil, etc. needed for all rehabilitated soils.

Generally, soils in Hydrologic Soil Groups A and B, which respectively may include deep, well-drained, sandy-gravelly materials or deep, moderately well-drained basal till materials, are among the easier ones to restore permeability and infiltration, by deep ripping and decompaction. Among the many different soils in Hydrologic Soil Group C are those unique glacial tills having a natural fragipan zone, beginning about 12 to 18 inches (30 – 45cm), below surface. Although soils in Hydrologic Soil Group C do require a somewhat more carefully applied level of the Deep Ripping and Decompaction practice, it can greatly benefit such affected areas by reducing the runoff and fostering infiltration to a level equal to that of pre-disturbance.

Soils in Hydrologic Soil Group D typically have a permanent high water table close to the surface, influenced by a clay or other highly impervious layer of material. In many locations with clay subsoil material, the bulk density is so naturally high that heavy trafficking has little or no added impact on infiltration; and structural runoff control practices rather than Deep Ripping and Decompaction should be considered.

The information about Hydrologic Soil Groups is merely a general guideline. Site-specific data such as limited depths of cut-and-fill grading with minimal removal or translocation of the inherent subsoil materials (as analyzed in the county soil survey) or, conversely, the excavation and translocation of deeper, unconsolidated substratum or consolidated bedrock materials (unlike the analyzed subsoil horizons' materials referred to in the county soil survey) should always be taken into account.

Sites made up with significant quantities of large rocks, or having a very shallow depth to bedrock, are not conducive to deep ripping and decompation (subsoiling); and other measures may be more practical.

Slope

The two-phase application of 1) deep ripping and 2) decompaction (deep subsoiling), is most practical on flat, gentle and moderate slopes. In some situations, such as but not limited to temporary construction access corridors, inclusion areas that are moderately steep along a project's otherwise gentle or moderate slope may also be deep ripped and decompacted. For limited instances of moderate steepness on other projects, however, the post-construction land use and the relative alignment of the potential ripping and decompaction work in relation to the lay of the slope should be reviewed for safety and practicality. In broad construction areas predominated by moderately steep or steep slopes, the practice is generally not used.

Local Weather/Timing/Soil Moisture

Effective fracturing of compressed subsoil material from the exposed work surface, laterally and vertically down through the affected zone is achieved only when the soil material is moderately dry to moderately moist. Neither one of the two-phases, deep ripping nor decompaction (deep

subsoiling), can be effectively conducted when the soil material (subsoil or replaced topsoil) is in either a "plastic" or "liquid" state of soil consistency. Pulling the respective implements legs through the soil when it is overly moist only results in the "slicing and smearing" of the material or added "squeezing and compression" instead of the necessary fracturing. Ample drying time is needed for a "rippable" soil condition not merely in the material close to the surface, but throughout the material located down to the bottom of the physically compressed zone of the subsoil.

The "poor man's Atterberg field test" for soil plasticity is a simple "hand-roll" method used for quick, on-site determination of whether or not the moisture level of the affected soil material is low enough for: effective deep ripping of subsoil; respreading of topsoil in a friable state; and final decompaction (deep subsoiling). Using a sample of soil material obtained from the planned bottom depth of ripping, e.g.: 20 - 24 inches below exposed subsoil surface, the sample is hand rolled between the palms down to a 1/8-inch diameter thread. (Use the same test for stored topsoil material before respreading on the site.) If the respective soil sample crumbles apart in segments no greater than 3/8 of an inch long, by the time it is rolled down to 1/8 inch diameter, it is low enough in moisture for deep ripping (or topsoil replacement), and decompaction. Conversely, as shown in Figure 5, if the rolled sample stretches out in increments greater than 3/8 of an inch long before crumbling, it is in a "plastic" state of soil consistency and is too wet for subsoil ripping (as well as topsoil replacement) and final decompaction.

Fig. 5. Augered from a depth of 19 inches below the surface of the replaced topsoil, this subsoil sample was hand rolled to a 1/8-inch diameter. The test shows the soil at this site stretches out too far without crumbling; it indicates the material is in a plastic state of consistence, too wet for final decompaction (deep subsoiling) at this time.

Design Guidance

Beyond the above-noted site factors, a vital requirement for the effective Deep Ripping and Decompaction (deep subsoiling), is implementing the practice in its distinct, two-phase process:

1) Deep rip the affected thickness of exposed subsoil material (see Figure 10 and 11), aggressively fracturing it before the protected topsoil is reapplied on the site (see Figure 12); and

2) Decompact (deep subsoil), simultaneously through the restored topsoil layer and the upper half of the affected subsoil (Figure 13). The second phase, "decompaction," mitigates the partial recompaction which occurs during the heavy process of topsoil spreading/grading. Prior to deep ripping and decompacting the site, all construction activity, including construction equipment and material storage, site cleanup and trafficking (Figure 14), should be finished; and the site closed off to further disturbance. Likewise, once the practice is underway and the area's soil permeability and

rainfall infiltration are being restored, a policy limiting all further traffic to permanent travel lanes is maintained.

The other critical elements, outlined below, are: using the proper implements (deep, heavy-duty rippers and subsoilers), and ample pulling-power equipment (tractors); and conducting the practice at the appropriate speed, depth and pattern(s) of movement.

Note that an appropriate plan for the separate practice of establishing a healthy perennial ground cover, with deep rooting to help maintain the restored soil structure, should be developed in advance. This may require the assistance of an agronomist or landscape horticulturist.

Implements

Avoid the use of all undersize implements. The small-to-medium, light-duty tool will, at best, only "scarify" the uppermost surface portion of the mass of compacted subsoil material. The term "chisel plow" is commonly but incorrectly applied to a broad range of implements. While a few may be adapted for the moderate subsoiling of non-impacted soils, the majority are less durable and used for only lighter land-fitting (see Figure 6).

Fig. 6. A light duty chisel implement, not adequate for either the deep ripping or decompaction (deep subsoiling) phase.

Fig. 7. One of several variations of an agricultural ripper. This unit has long, rugged shanks mounted on a steel V-frame for deep, aggressive fracturing through Phase 1.

Use a "heavy duty" agricultural-grade, deep ripper (see Figures 7,9,10 and 11) for the first phase: the lateral and vertical fracturing of the mass of exposed and compressed subsoil, down and through, to the bottom of impact, prior to the replacement of the topsoil layer. (Any oversize rocks which are uplifted to the subsoil surface during the deep ripping phase are picked and removed.) Like the heavy-duty class of implement for the first phase, the decompaction (deep subsoiling) of Phase 2 is conducted with the heavy-duty version of the deep subsoiler. More preferable is the angled-leg variety of deep subsoiler (shown in Figures 8 and 13). It minimizes the inversion of the subsoil and topsoil layers while laterally and vertically fracturing the upper half of the previously ripped subsoil layer and all of the topsoil layer by delivering a momentary, wave-like "lifting and shattering" action up through the soil layers as it is pulled.

Pulling-Power of Equipment

Use the following rule of thumb for tractor horsepower (hp) whenever deep ripping and decompacting a significantly impacted site: For both types of implement, have at least 40 hp of tractor pull available for each mounted shank/ leg.

Using the examples of a 3-shank and a 5-shank implement, the respective tractors should have 120 and 200 hp available for fracturing down to the final depth of 20-to-24 inches per phase. Final depth for the deep ripping in Phase 1 is achieved incrementally by a progressive series of passes (see Depth and Patterns of Movement, below); while for Phase 2, the full operating depth of the deep subsoiler is applied from the beginning.

The operating speed for pulling both types of implement should not exceed 2 to 3 mph. At this slow and managed rate of operating speed, maximum functional performance is sustained by the tractor and the implement performing the soil fracturing. Referring to Figure 8, the implement is the 6-leg version of the deep angled-leg subsoiler. Its two outside legs are "chained up" so that only four legs will be engaged (at the maximum depth), requiring no less than 160 hp, (rather than 240 hp) of pull. The 4-wheel drive, articulated-frame tractor in Figure 8 is 174 hp. It will be decompacting this unobstructed, former construction access area simultaneously through 11 inches of replaced topsoil and the upper 12 inches of the previously deep-ripped subsoil. In constricted areas of Phase 1) Deep Ripping, a medium-size tractor with adequate hp, such as the one in Figure 9 pulling a 3-shank deep ripper, may be more maneuverable.

Fig. 8. A deep, angled-leg subsoiler, ideal for Phase 2 decompaction of after the topsoil layer is graded on top of the ripped subsoil.

Fig. 9. This medium tractor is pulling a 3-shank deep ripper. The severely compacted construction access corridor is narrow, and the 120 hp tractor is more maneuverable for Phase 1 deep ripping (subsoil fracturing), here.

Some industrial-grade variations of ripping implements are attached to power graders and bulldozers. Although highly durable, they are generally not recommended. Typically, the shanks or "teeth" of these rippers are too short and stout; and they are mounted too far apart to achieve the well-distributed type of lateral and vertical fracturing of the soil materials necessary to restore soil permeability and infiltration. In addition, the power graders and bulldozers, as pullers, are far less maneuverable for turns and patterns than the tractor.

Depth and Patterns of Movement

As previously noted both Phase 1 Deep Ripping through significantly compressed, exposed subsoil and Phase 2 Decompaction (deep subsoiling) through the replaced topsoil and upper subsoil need to be performed at maximum capable depth of each implement. With an implement's guide wheels attached, some have a "normal" maximum operating depth of 18 inches, while others may go deeper. In many situations, however, the tractor/implement operator must first remove the guide wheels and other non essential elements from the implement. This adapts the ripper or the deep subsoiler for skillful pulling with its frame only a few inches above surface, while the shanks or legs, fracture the soil material 20-to-24 inches deep.

There may be construction sites where the depth of the exposed subsoil's compression is moderate, e.g.: 12 inches, rather than deep. This can be verified by using a ¾ inch cone penetrometer and a shovel to test the subsoil for its level of compaction, incrementally, every three inches of increasing depth. Once the full thickness of the subsoil's compacted zone is finally "pieced" and there is a significant drop in the psi measurements of the soil penetrometer, the depth/thickness of compaction is determined. This is repeated at several representative locations of the construction site. If the thickness of the site's subsoil compaction is verified as, for example, ten inches, then the Phase 1 Deep Ripping can be correspondingly reduced to the implement's minimum operable depth of 12 inches. However, the Phase 2 simultaneous Decompation (subsoiling) of an 11 inch thick layer of replaced topsoil and the upper subsoil should run at the subsoiling implements full operating depth.

Fig. 10. An early pass with a 3-shank deep ripper penetrating only 8 inches into this worksite's severely compressed subsoil.

Fig. 11. A repeat run of the 3-shank ripper along the same patterned pass area as Fig. 9; here, incrementally reaching 18 of the needed 22 inches of subsoil fracture.

Typically, three separate series (patterns) are used for both the Phase 1 Deep Ripping and the Phase 2 Decompaction on significantly compacted sites. For Phase 1, each series begins with a moderate depth of rip and, by repeat-pass, continues until full depth is reached. Phase 2 applies the full depth of Decompation (subsoiling), from the beginning.

Every separate series (pattern) consists of parallel, forward-and-return runs, with each progressive

pass of the implement's legs or shanks evenly staggered between those from the previous pass. This compensates for the shank or leg-spacing on the implement, e.g., with 24-to-30 inches between each shank or leg. The staggered return pass ensures lateral and vertical fracturing actuated every 12 to 15 inches across the densely compressed soil mass.

Large, Unobstructed Areas

For larger easy areas, use the standard patterns of movement:

- The first series (pattern) of passes is applied lengthwise, parallel with the longest spread of the site; gradually progressing across the site's width, with each successive pass.

- The second series runs obliquely, crossing the first series at an angle of about 45 degrees.

- The third series runs at right angle (or 90 degrees), to the first series to complete the fracturing and shattering on severely compacted sites, and avoid leaving large unbroken blocks of compressed soil material. (In certain instances, the third series may be optional, depending on how thoroughly the first two series loosen the material and eliminate large chunks/blocks of material as verified by tests with a ¾-inch cone penetrometer.)

Fig. 12. Moderately dry topsoil is being replaced on the affected site now that Phase 1 deep ripping of the compressed subsoil is complete.

Fig. 13. The same deep, angled-leg subsoiler shown in Fig. 7 is engaged at maximum depth for Phase 2, decompaction (deep soiling), of the replaced topsoil and the upper subsoil materials.

Corridors

In long corridors of limited width and less maneuverability than larger sites, e.g.: along compacted areas used as temporary construction access, a modified series of pattern passes are used.

- First, apply the same initial lengthwise, parallel series of passes described above.

● A second series of passes makes a broad “S” shaped pattern of rips, continually and gradually alternating the “S” curves between opposite edges inside the compacted corridor.

● The third and final series again uses the broad, alternating S pattern, but it is “flip-flopped” to continually cross the previous S pattern along the corridor’s centerline. This final series of the S pattern curves back along the edge areas skipped by the second series.

Maintenance and Cost

Once the two-phase practice of Deep Ripping and Decompation is completed, two items are essential for maintaining a site’s soil porosity and permeability for infiltration. They are: planting and maintaining the appropriate ground cover with deep roots to maintain the soil structure (see Figure 15); and keeping the site free of traffic or other weight loads.

Note that site-specific choice of an appropriate vegetative ground-cover seed mix, including the proper seeding ratio of one or more perennial species with a deep taproot system and the proper amount of lime and soil nutrients (fertilizer mix) adapted to the soil-needs, are basic to the final practice of landscaping, i.e: surface tillage, seeding/planting/fertilizing and culti-packing or mulching is applied. The "maintenance" of an effectively deep-ripped and decompacted area is generally limited to the successful perennial (long-term) landscape ground cover; as long as no weight-bearing force of soil compaction is applied.

Fig. 14. The severely compacted soil of a temporary construction yard used daily by heavy equipment for four months; shown before deep ripping, topsoil replacement, and decompaction.

Fig. 15. The same site as Fig. 14 after deep ripping of the exposed subsoil, topsoil replacement, decompaction through the topsoil and upper subsoil and final surface tillage and revegetation to maintain soil permeability and infiltration.

The Deep Ripping and Decompaction practice is, by necessity, more extensive than periodic subsoiling of farmland.The cost of deep ripping and decompacting (deep subsoiling), will vary according to the depth and severity of soil-material compression and the relative amount of tractor and implement time that is required. In some instances, depending on open maneuverability, two-to-three acres of compacted project area may be deep-ripped in one day. In other situations of more severe compaction and - or less maneuverability, as little as one acre may be fully ripped in a day. Generally, if the Phase 1) Deep Ripping is fully effective, the Phase 2) Decompaction should be completed in 2/3 to 3/4 of the time required for Phase 1.

Using the example of two acres of Phase 1) Deep Ripping in one day, at $1800 per day, the net cost is $900 per acre. If the Phase 2) Decompacting or deep subsoiling takes 3/4 the time as Phase 1, it costs $675 per acre for a combined total of $1575 per acre to complete the practice (these figures do not include the cost of the separate practice of topsoil stripping and replacement). Due to the many variables, it must be recognized that cost will be determined by the specific conditions or constraints of the site and the availability of proper equipment.

Resources

Publications:

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- Carpachi, N. 1987 (1995 fifth printing). *Excavation and Grading Handbook, Revised. 2nd ed.* Craftsman Book Company
- Ellis, B. (Editor). 1997. Safe & Easy Lawn Care: The Complete Guide to Organic Low Maintenance Lawn. Houghton Mifflin.

- Harpstead, M.I., T.J. Sauer, and W.F. Bennett. 2001. *Soil Science Simplified. 4th ed.* Iowa State University Press.

- Magdoff, F., and H. van Es. 2000. *Building Soils for Better Crops. 2nd ed.* Sustainable Agricultural Networks

- McCarthy, D.F. 1993. *Essentials of Soil Mechanics and Foundations, Basic Geotechnics 4th ed.* Regents/Prentice Hall.

- Plaster, E.J. 1992. *Soil Science & Management. 3rd ed.* Delmar Publishers.

- Union Gas Limited, Ontario, Canada. 1984. *Rehabilitation of Agricultural Lands, Dawn-Kerwood Loop Pipeline; Technical Report*. Ecological Services for Planning, Ltd.; Robinson, Merritt & Devries, Ltd. and Smith, Hoffman Associates, Ltd.

- US Department of Agriculture in cooperation with Cornell University Agricultural Experiment Station. Various years. *Soil Survey of (various names) County, New York.* USDA.

Internet Access:

- Examples of implements:

V-Rippers. Access by internet search of *John Deere Ag -New Equipment for 915* (larger-frame model) *V-Rippe*; and, *for 913* (smaller-frame model) *V-Ripper*. Deep, angled-leg subsoiler. Access by internet search of: B*igham Brothers Shear Bolt Paratill-Subsoiler.* http://salesmanual.deere.com/sales/salesmanual/en_NA/primary_tillage/2008/feature/rippers/915v_pattern_frame.html?sbu=ag&link=prodcat Last visited March 08.

- Soils data of USDA Natural Resources Conservation Service. *NRCS Web Soil Survey.* http://websoilsurvey.nrcs.usda.gov/app/ and *USDA-NRCS Official Soil Series Descriptions; View by Name.* http://ortho.ftw.nrcs.usda.gov/cgi-bin/osd/osdname.cgi . *Last visited Jan. 08.*

- Soil penetrometer information. Access by internet searches of: *Diagnosing Soil Compaction using a Penetrometer (soil compaction tester), PSU Extension;* as well as *Dickey-john Soil Compaction Tester*. http://www.dickey-johnproducts.com/pdf/SoilCompactionTest.pdf and http://cropsoil.psu.edu/Extension/Facts/uc178pdf Last visited Sept. 07

APPENDIX N
NYSOPRHP LETTER

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

March 28, 2023

David Young
Project Manager
WMB Geologic & Engineering Services, DPC
284 Route 17C
Waverly, NY 18810

Re: SEQRA
Commercial Building Construction
7174 Alleghany Rd, Basom, NY 14013
23PR02390

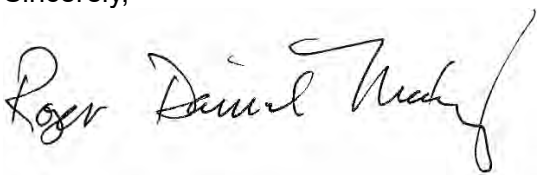
Dear David Young:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,



R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

rev: S. Snyder