

**Malone Main Street Program**

**Bid Package for**

**7+9 E. Main Street, Malone, NY 12953**

**Administered by the  
Franklin County Economic Development Corporation  
355 West Main Street, Suite 317B  
Malone, New York 12953**

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### **Malone Main Street Program Section 01 Advertisement For Bids**

The Franklin County Economic Development Corporation (FCEDC) is currently accepting bids for exterior commercial renovations to be performed on a privately-owned building located at 7+9 E. Main Street in the Village of Malone.

The bid package may be obtained online at [www.adirondackfrontier.com/doing-business/bids/](http://www.adirondackfrontier.com/doing-business/bids/) or by contacting the FCEDC at [help@adirondackfrontier.com](mailto:help@adirondackfrontier.com).

The pre-bid meeting will be held on site on **Friday, July 7, 2023 at 10 AM**. Bids will be accepted until **Friday, July 14, 2023 at 5PM**. Bids shall be emailed to the FCEDC at [help@adirondackfrontier.com](mailto:help@adirondackfrontier.com).

The project must be completed by **December 31, 2023**.

In awarding bids, FCEDC and the property owner reserve the right to reject any and all bids, waive formalities, informalities and technicalities therein, and to take whatever bids it determines to be in the best interest of the FCEDC and property owner considering lowest or best bid, quality of goods and work, time of delivery or completion, responsibility of bidders being considered, previous experience of bidders, or any other factors they deem appropriate.

The project is funded in part through the New York Main Street Program. As such, Bidders will be required to comply with all applicable Village, State and Federal requirements and regulations pertaining to the Program. However, Bidders should be aware that this project is not subject to State Prevailing Wage or Federal Davis-Bacon Wage requirements.

End of Section

**Malone Main Street Program  
Section 02  
Information for Bidders**

**1. Location of the Work**

7+9 E. Main Street, Malone, NY 12953

**2. Description of the Work**

The Contractor will provide all labor and material necessary to complete building renovations at the above-referenced location as more fully described in Section 03 – Project Workslope. A pre-bid site visit may be scheduled by contacting Rachel Child, Community Development Specialist at (518) 481-8211 or [rachel@adirondackfrontier.com](mailto:rachel@adirondackfrontier.com).

**3. Receipt & Opening of Bids**

Bids shall be submitted using the Bid Form in Section 04. Bids will be received by the FCEDC until the date and time stated in the attached Advertisement For Bids. Bids shall be emailed to [help@adirondackfrontier.com](mailto:help@adirondackfrontier.com). There is no formal bid opening.

**4. Informalities, Waivers and Withdrawals**

FCEDC may consider informal any Bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities in or reject any or all Bids. Conditioned Bids or Bids which do not contain a price for every numbered item contained in the Bid form will not be accepted.

**5. Obligations of Bidders**

At the time of the opening of Bids, each Bidder will be presumed to have inspected the Site, to have informed himself fully of the conditions relating to the work and labor required for the work, and to have read and acquainted himself with all Contract Documents. Failure to do so will not relieve the Bidder who is awarded the Contract of his obligation to complete the work for the price or prices bid, or any other obligation under the Contract. The failure or omission of any Bidder to receive or examine any Contract Documents shall in no way relieve him from any obligation in respect to his Bid. The project is subject to all New York State rules and regulations and the Bidder will be presumed to have understood and accepted these requirements.

**6. Bidders Representations**

By making a Bid, the Bidder represents and warrants to FCEDC that (i) Bidder is and will be financially responsible and has and will have sufficient liquidity to meet its financial responsibilities under the Contract and for all other projects in which Bidder is or may become involved; (ii) Bidder is able to furnish the tools, materials, supplies, equipment, and labor required to complete the Work and perform the obligations required under the Contract Documents and has sufficient experience to do so; (iii) Bidder has carefully examined the Contract Documents and has visited and examined the project site; (iv) Bidder has satisfied itself as to the nature and location of the proposed Work, the general and local conditions, and all matters which may in any way affect the Work; (v) Bidder fully understands the intent and purpose of the Contract Documents, and (vi) the bid is based on labor, material, equipment, and systems required by the Contract Documents without exception. Claims for additional compensation and/or extension of time relating to Bidder's noncompliance with such representations and warranties will not be allowed.

**7. Contractual Arrangements**

A contract will be issued between the property owner and the contractor exclusively. The FCEDC holds the right to monitor the project to ensure funding source compliance and the completeness of work. The property owner will be responsible for contractor payment and must abide by all grant program regulations.

**8. Indemnity**

The contractor shall indemnify and hold harmless the FCEDC and its employees, consultants and contractors from and against any and all claims, suits, actions, proceedings and any and all resulting damages, losses, costs and expenses of every nature, type and kind including reasonable attorney's fees which claims arise out of work performed by the contractor, its subcontractors and others who are employed by the contractor or its subcontractors during the course of the project.

**9. Award of Contract**

The Contract will be awarded to the lowest responsible bidder as determined by FCEDC unless the owner of the subject property chooses a different bid and agrees to pay the difference between the preferred bid and the lowest responsible bid.

End of Section

**Malone Main Street Program  
Section 03  
Project Scope of Work**

Owner Name	Village of Malone	Phone:	518-483-4570
Property Address	7+9 East Main St. Malone, NY 12953	Alternate Contact:	rscaccia@villageofmalone-ny.com

Project Description: 7+9 East Main St, Malone, NY is a municipally owned parking lot. The Village has been awarded grant funding to make necessary upgrades described below. This lot is a part of the Malone National Historic District and care will need to be given to maintain the integrity of the historic features.

**General Conditions**

- All permits and inspection fees to be paid by the contractor. No work is to be performed without the necessary permits obtained.
  - Project will require a building permit issued from the local building department and inspections as specified by the code officer.
- Contractor responsible for obtaining all permits and scheduling inspections deemed necessary by the local authorities. This includes any 3<sup>rd</sup> party inspections.
- Contractor to supply owner copies of all manufacturers warranties.
- All work to conform to the New York State Building Code and/or all other applicable regulations.
- Contractor to remove and dispose of all debris and keep property clean and safe on a daily basis.
- All work to be done in a professional and workmanlike manner.
- All changes to work must be done in writing and approved by Franklin County EDC and owner.
- Contractor is responsible for removal and disposal of all construction debris.

**Bid Cost Sheet**

Item No.	Work Scope Description	Material Cost	Labor Cost	Total Cost
1	General Construction <ul style="list-style-type: none"> <li>• See site plans and technical specifications attached (p.11 + p.26)</li> </ul>	\$	\$	\$
2	Park Sign <ul style="list-style-type: none"> <li>• See technical specifications (p.28)</li> </ul>	\$	\$	\$
Total Project Cost	Please total all columns	\$	\$	\$

**Attachments**

- A. Site plans**
- B. Technical specifications**

End of Section

**Malone Main Street Program**

**Section 05**

**Bid Form – Page 1 of 5**

*Instructions: All bids shall be submitted using this form and must include all other documentation described in the Project Specifications.*

Project Name: 7+9 E. Main Street, Malone, NY – Exterior Renovations

Contractor Name:

**Proposal Detail**

Item	Description	Bid Price
1.	General Construction	
2.	Park Sign	
	Total	

*Instructions: The Bid Certification must be signed by a person authorized to enter into a contract on behalf of the company listed.*

**Bid Certification**

I, the undersigned contractor, have inspected the above listed property and understand the extent and character of the work to be completed as described in the Project Specifications.

I propose to furnish all labor, materials, and equipment necessary to accomplish the work, as described in the Project Specifications, on the property located at \_\_\_\_\_,  
for the sum of \_\_\_\_\_ dollars (\$\_\_\_\_\_).

I will commence the work within \_\_\_\_\_ calendar days from the date the notice to proceed is received and will complete by \_\_\_\_\_. This bid is valid for a period of 60 days.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**Malone Main Street Program**  
**Section 05**  
**Bid Form – Page 2 of 5**

*Instructions: Complete the following table. Attach additional sheets if necessary.*

Company Information						
Company Name:				Officers, Partners, Owner Name(s):		
Address:				Address:		
City:		State:	Zip:	City:		State: Zip:
Phone:		Cell:		Phone:		Cell:
Email:				Email:		

*Instructions: List the construction experience of each of the company principals: (Indicate number of years in the industry and if experience is new construction, rehabilitation, historic renovations, energy efficiency, etc.). Attach additional sheets if necessary.*

Experience	
Principal Name:	Principal Name:
Experience:	Experience:

*Instructions: List business references including local banks, subcontractors, and material suppliers.*

Business References					
Name:			Name:		
Address:			Address:		
City:		State:	Zip:	City: State: Zip:	
Phone:			Phone:		

*Instructions: List customers with whom the company has recently done business.*

Customer References					
Name:			Name:		
Address:			Address:		
City:		State:	Zip:	City: State: Zip:	
Phone:		Contract Amount:		Phone: Contract Amount:	

**Malone Main Street Program**

**Section 05**

**Bid Form – Page 3 of 5**

*Instructions: Attach documentation of insurance. If you do not have insurance, state in the explanation section that it will be obtained prior to the start of construction.*

Insurance	
Documentation Submitted with application (Check all that apply)	<input checked="checked" type="checkbox"/>
Liability Insurance ( <i>Franklin County Economic Development Corporation should be listed as the certificate holder and additional insured. Housing Trust Fund Corporation should also be listed as additional insured.</i> )	
Workers' Compensation Insurance	
Explanation if not attached.	

*Instructions: Principal owners must sign and date the following Attestation.*

Attestation
<p>The undersigned contractor certifies that all information given herein is correct and that the information may be verified from any source and further agrees:</p> <ol style="list-style-type: none"><li>1. That the contractor will perform the work in accordance with the description of work, general specifications, the NYS Uniform Fire Prevention and Building Code, the Village of Malone Code, and all other applicable rehabilitation guidelines and standards and be subject to a final inspection by the Village of Malone.</li><li>2. That if the work performed by the contractor is found to be unsatisfactory or if the contract relations between the contractor, property owner, or other parties are found to be unsatisfactory, the Franklin County Economic Development Corporation may remove his/her name from the list of selected contractors without notice.</li><li>3. That she/he will abide by all applicable equal employment opportunity regulations.</li></ol>
_____ Contractor Name (Please Print)
_____ Contractor Signature
_____ Date



**Malone Main Street Program**

**Section 05**

**Bid Form – Page 4 of 5**

**NON-COLLUSIVE BIDDING CERTIFICATION**

**BY SUBMISSION OF THIS BID, BIDDERS AND EACH PERSON SIGNING ON BEHALF OF BIDDER CERTIFIES, AND IN THE CASE OF JOINT BID, EACH PARTY THERETO CERTIFIES AS TO ITS OWN ORGANIZATION, UNDER PENALTY OF PERJURY, THAT TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF:**

1. The prices of this bid have been arrived at independently, without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor;
2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to opening, directly or indirectly, to any other Bidder or to any competitor; and
3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

**A BID SHALL NOT BE CONSIDERED FOR AWARD NOR SHALL ANY AWARD BE MADE WHERE 1, 2, 3 ABOVE HAVE NOT BEEN COMPLIED WITH; PROVIDED HOWEVER, THAT IF IN ANY CASE THE BIDDER(S) CANNOT MAKE THE FORGOING CERTIFICATION, THE BIDDER SHALL SO STATE AND SHALL FURNISH BELOW A SIGNED STATEMENT WHICH SETS FORTH IN DETAIL THE REASONS THEREFORE:**

[BIDDERS AFFIX ADDENDUM TO THIS PAGE IF SPACE IS REQUIRED FOR STATEMENT]

Subscribed to under penalty of perjury under the laws of the State of New York, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ as the act and deed of said individual, corporation or partnership.

**Person Legally Responsible for Binding Bidder**

Name \_\_\_\_\_ Title \_\_\_\_\_

Signature \_\_\_\_\_

**Joint or combined bids must be certified on behalf of each participant**

\_\_\_\_\_  
Legal name of person, firm or corporation

\_\_\_\_\_  
Legal name of person, firm or corporation

**Person(s) Legally Responsible for Binding Participant**

Name \_\_\_\_\_ Name \_\_\_\_\_  
Title \_\_\_\_\_ Title \_\_\_\_\_  
Business Address \_\_\_\_\_ Business Address \_\_\_\_\_

**Malone Main Street Program**  
**Section 05**  
**Bid Form – Page 5 of 5**

**Bidder's Identifying Data**

**Bidder's Name** \_\_\_\_\_

**Business Address** \_\_\_\_\_

Street

City

State

Zip

Telephone \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

**Federal id. Number** \_\_\_\_\_

**If Bidder is a Partnership complete the following:**

Name of Partners or Principals

Business Address

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**If Bidder is a Corporation complete the following:**

Name

Business Address

\_\_\_\_\_

\_\_\_\_\_

President

\_\_\_\_\_

\_\_\_\_\_

Secretary

\_\_\_\_\_

\_\_\_\_\_

Treasurer

\_\_\_\_\_

\_\_\_\_\_

End of Section



# VILLAGE OF MALONE OVERLOOK PROJECT



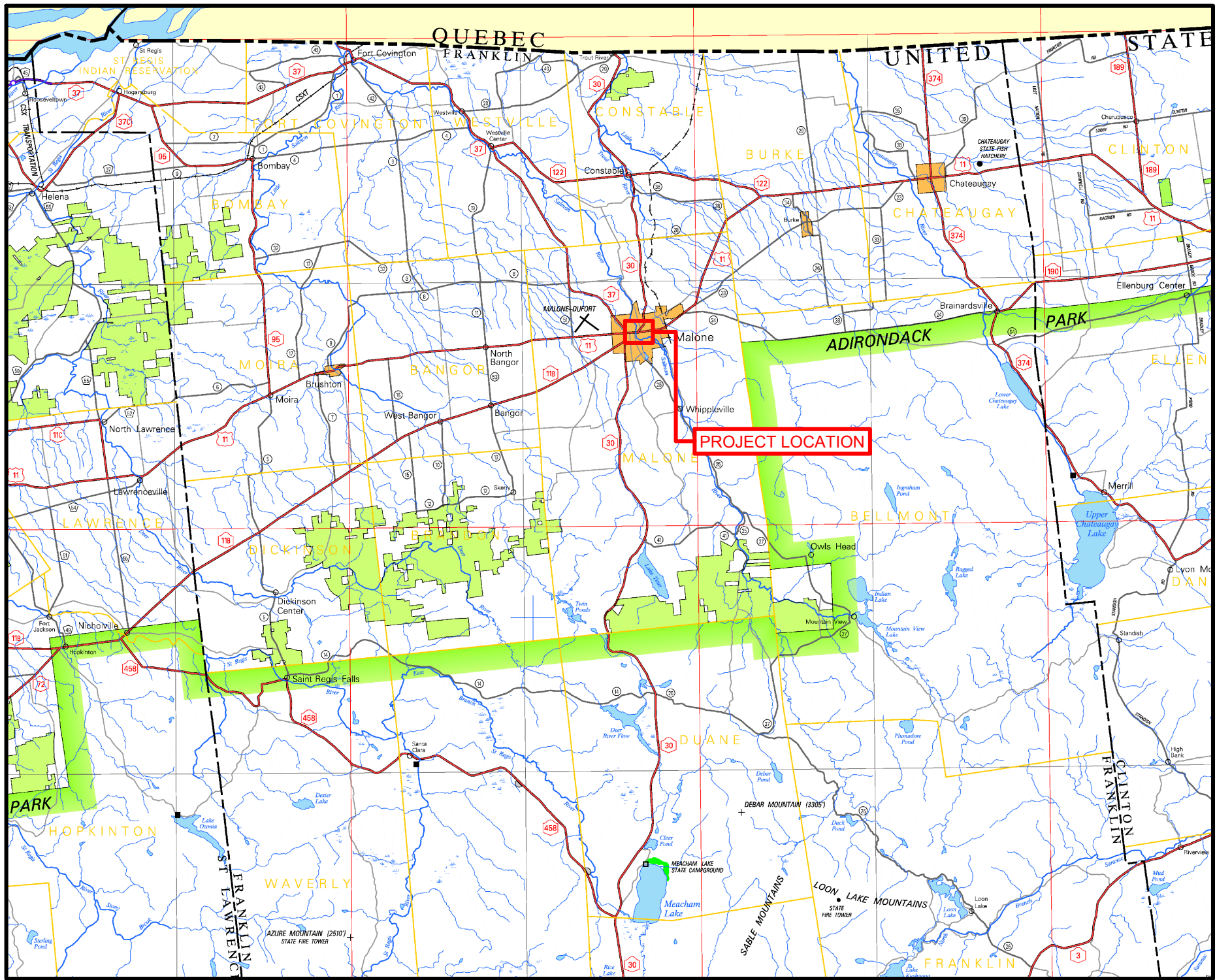
7+9 EAST MAIN STREET  
VILLAGE OF MALONE, FRANKLIN COUNTY, STATE OF NEW YORK  
DATED: JUNE 327, 2023  
**CONSTRUCTION DOCUMENTS**

PREPARED BY: GYMO ARCHITECTURE, ENGINEERING & LAND SURVEYING, DPC  
18969 US ROUTE 11 WATERTOWN, NY 13601

INDEX OF DRAWING:

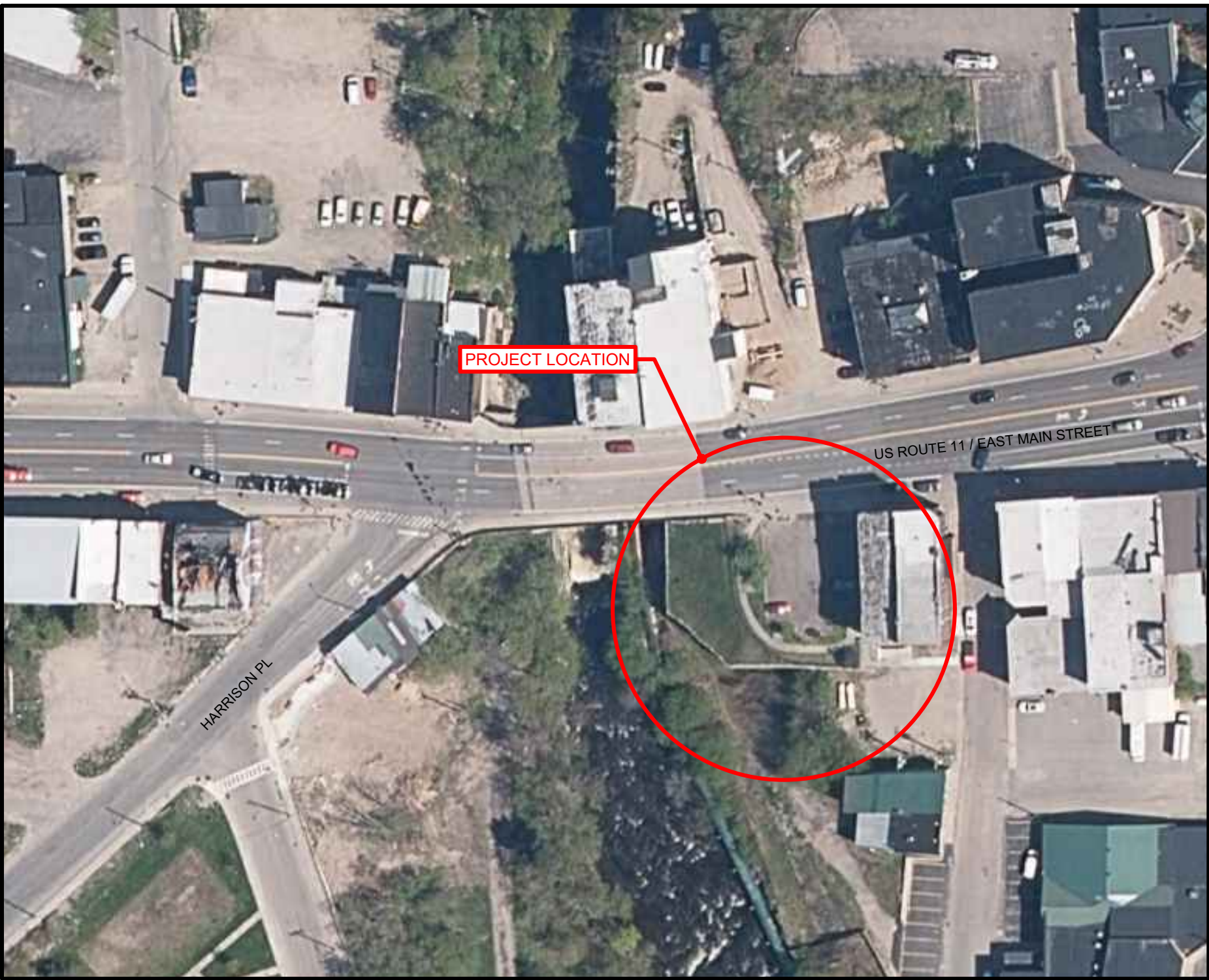
CIVIL ENGINEERING SHEETS

- COVER SHEET
- G001 - GENERAL NOTES AND ABBREVIATIONS
- C101 - DEMOLITION / EROSION CONTROL PLAN
- C102 - SITE DEVELOPMENT PLAN
- C501 - DETAILS
- C502 - DETAILS



VICINITY MAP - FRANKLIN COUNTY

NOT TO SCALE



LOCATION MAP

NOT TO SCALE

PREPARED BY:



Architecture  
Engineering  
Land Surveying

WWW.GYMODPC.COM  
18969 US Route 11 Watertown, NY 13601  
315.788.3900

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IT IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, SUCH LICENSEE SHALL AFFIX HIS OR HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS OR HER SIGNATURE, DATE AND A SPECIFIC DESCRIPTION OF ALTERATION.



MATTHEW J. CERVINI - PE  
NEW YORK STATE REGISTRATION NO. 080973

PREPARED FOR:



VILLAGE OF MALONE  
343 WEST MAIN STREET  
MALONE, NY 12953  
CONTACT:  
REBAHKA SCACCIA - VILLAGE CLERK  
PHONE: (518) 483-4570

2023-023 - JUNE 27, 2023  
VILLAGE OF MALONE OVERLOOK PROJECT  
VILLAGE OF MALONE, FRANKLIN COUNTY, STATE OF NEW YORK



CONSTRUCTION  
DOCUMENTS



UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN. PRIOR TO CONSTRUCTION CONTACT UNDERGROUND UTILITIES CALL CENTER OF NEW YORK FOR EXACT LOCATION OF ALL UNDERGROUND UTILITIES. (1-800-962-7962). CONTRACTOR IS RESPONSIBLE FOR LOCATING AND WORKING WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION.

2. SITE RECONNAISSANCE AND EXISTING CONDITIONS DATA WAS GATHERED BY GYMO ARCHITECTURE, ENGINEERING, & LAND SURVEYING D.P.C. IN MAY OF 2023. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION ACTIVITIES.

3. ALL OUT-OF-SCOPE AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS WILL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THAT PRIOR TO CONSTRUCTION. OUTSIDE OF PROPERTY BOUNDARIES AND EASEMENT AREAS THE CONTRACTOR IS REMINDED TO OBTAIN WRITTEN AUTHORIZATION TO USE PRIVATE PROPERTY AND ASSUMES ALL LIABILITY WHEN ACCESSING THOSE PROPERTIES.

4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CHARACTERISTICS AND EXTENT OF SUBSURFACE SOILS, ROCK, WATER TABLE LEVELS, ETC., PRIOR TO BIDDING.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, SECURITY, BONDS, FEES, AND PAYMENTS TO OBTAIN SAID PERMITS WHERE APPLICABLE.

6. WHEN THE PERFORMANCE OF THE CONTRACTOR'S WORK REQUIRES THE INTERRUPTION OF UTILITY SERVICES, HE/SHE SHALL ISSUE A 48 HOUR PRIOR NOTICE TO THE GOVERNING MUNICIPALITY.

7. SITE CONTRACTOR TO PROVIDE EROSION AND SEDIMENT CONTROL AND DUST CONTROL.

8. A LICENSED LAND SURVEYOR SHALL BE RETAINED FOR ALL UTILITY AND FIELD STAKEOUT AND AS-BUILTS AT THE CONTRACTORS EXPENSE.

9. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION UNTIL ESTABLISHMENT OF VEGETATIVE COVER. RUN-OFF CONTAINING SEDIMENTS FROM DISTURBED AREAS OF THE SITE SHALL NOT BE ALLOWED DIRECTLY OFF SITE OR INTO NATURAL STREAM CHANNELS.

10. ALL EXISTING TREES TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. CONSTRUCTION ACTIVITIES ADJACENT TO TREES SHALL BE CONDUCTED TO REDUCE THE IMPACT TO TREES TO THE MAXIMUM EXTENT PRACTICAL. ANY DAMAGE TO EXISTING TREES SHALL BE REPAIRED OR THE TREE REPLACED, AS DIRECTED BY THE OWNER AT THE CONTRACTORS EXPENSE.

11. CONTRACTOR SHALL PERFORM ALL R.O.W. CONNECTION AND/OR ADJACENT WORK IN ACCORDANCE WITH NYS DOT SPECIFICATIONS. ALL R.O.W. WORK SHALL BE IN ACCORDANCE WITH NYS DOT WORK ZONE TRAFFIC CONTROL REGULATIONS, INCLUDING FLAGMEN, BARRICADES, WARNING SIGNS/LIGHTS, ETC., WHERE WARRANTED.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING, GRUBBING, CUTTING AND DISPOSING OF VEGETATION, TREES AND DEBRIS IN A NYSDEC ACCEPTABLE LOCATION.

13. CONTRACTOR SHALL PERFORM ALL NECESSARY EARTHWORK, INCLUDING THE STRIPPING, STOCKPILING AND REPLACING OF TOPSOIL IN ACCORDANCE WITH THE PLANS. EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE.

14. EXCAVATIONS SHALL BE TO DEPTHS SHOWN ON DRAWINGS. ALL UNSTABLE OR UNSUITABLE MATERIAL SHALL BE EXCAVATED AND REMOVED TO SUCH DEPTH AS REQUIRED TO PROVIDE SUFFICIENT BEARING CAPACITY. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL.

15. COMPACTION OF PIPE BEDDING AND BACKFILL MATERIAL SHALL BE BY MEANS OF HAND-GUIDED POWER DRIVEN, DRUM-TYPE, OR PLATE TAMPERS. BACKFILLING SHOULD PROCEED IN ACCORDANCE WITH LIFT THICKNESSES AND COMPACTION REQUIREMENTS AS SHOWN ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPACTION REQUIREMENTS REFER TO PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM STANDARD D1557 MODIFIED PROCTOR METHOD. CARE SHALL BE TAKEN TO SHAPE PIPE BEDDING TO FIT THE LOWER PART OF THE PIPE. BACKFILLING AND COMPACTION SHOULD PROGRESS EVENLY ALONG THE PIPE SIDEWALLS AND TO THE TOP OF THE PIPE BEDDING.

16. COMPACTION SHALL BE 90% MAXIMUM DRY DENSITY IN GRASS AREAS AND 95% MAXIMUM DRY DENSITY IN TRAFFIC AREAS AND 98% MAXIMUM DRY DENSITY UNDER AND AROUND STRUCTURES. MAXIMUM DRY DENSITY SHALL BE AS DETERMINED BY ASTM - D1557 MODIFIED PROCTOR METHOD. THE CONTRACTOR SHALL HIRE AN INDEPENDENT TESTING AGENCY TO PERFORM COMPACTION TESTING PER TECHNICAL SPECIFICATIONS AND PROVIDE THE RESULTS TO THE OWNER AND TOWN FOR REVIEW PRIOR TO FINAL PAYMENT.

17. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF DIMENSIONS, ELEVATIONS AND LOCATIONS DURING PRECONSTRUCTION FIELD VERIFICATION, SUCH INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR VERIFICATION OR MODIFICATION OF THE PLANS.

18. THE CONTRACTOR SHALL DELIVER TO THE OWNER, AN AS-BUILT SURVEY, SIGNED AND SEALED BY A LAND SURVEYOR OR ENGINEER LICENSED IN THE STATE OF NEW YORK. AS-BUILT RECORD DRAWINGS SHALL INCLUDE, AS A MINIMUM, THE FOLLOWING INFORMATION AS WELL AS ALL REQUIREMENTS OF THE SPECIFICATION:

- \* RECORD OF ALL UTILITIES ENCOUNTERED IN TRENCH EXCAVATION. INFORMATION SHALL INCLUDE DIAMETER OF UTILITY, DEPTH OF BURIAL AND LOCATION WITH REFERENCE TO NEAREST STRUCTURE SHOWN ON DRAWINGS. THIS INFORMATION SHALL BE KEPT CURRENT ON A WEEKLY BASIS. FAILURE TO DO SO MAY RESULT IN WITHHOLDING OF PAYMENTS.
- \* DISTANCE TIES TO ALL BENDS, VALVES, CORPORATION STOPS, WYES, MANHOLES, CLEAN OUTS, CATCH BASINS, ETC.
- \* UTILITY REPAIRS, SIDEWALK, AND DRIVEWAY REPLACEMENTS CENTERLINE.
- \* RIM AND INVERT ELEVATIONS AND HORIZONTAL LOCATION OF MANHOLES, CATCH BASINS, AND CLEANOUTS.
- \* STATIONS OF BENDS AND VALVES.
- \* FINAL GRADE ELEVATIONS TO NEAREST 0.1-FOOT AND FINISHED FLOOR ELEVATIONS.
- \* DENOTED BENCH MARK REFERENCES USED.
- \* PERIODIC OFFSETS
- \* NOTATION FROM THE ENGINEER OR SURVEYOR THAT THE GRADES ARE IN CONFORMANCE WITH THE SITE PLANS.
- \* RECORD DETAILS NOT SHOWN ON THE ORIGINAL CONTRACT DOCUMENTS, ANY FIELD CHANGES OF DIMENSIONS AND DETAILS AND ANY CHANGES MADE BY CHANGE ORDER OR FIELD ORDER.
- \* CERTIFICATE OF SUBSTANTIAL COMPLETION SHALL NOT BE ISSUED UNTIL AS-BUILT INFORMATION IS ACCEPTABLE.
- \* TWO (2) SETS OF FINAL COMPLETE RECORD DRAWINGS AND A PDF FILE OF THE COMPLETE RECORD DRAWINGS. CONTRACTOR SHALL FURNISH AS-BUILT DATA ON PLAN SHEETS.

19. UPON COMPLETION OF CONSTRUCTION ACTIVITIES AND ESTABLISHMENT OF VEGETATION, THE EXISTING STORM SYSTEMS RECEIVING RUNOFF FROM THIS SITE SHALL BE CLEANED OF DEBRIS. ONLY AT THIS TIME SHALL THE EROSION AND SEDIMENTATION CONTROL MEASURES BE REMOVED.

20. CONTRACTOR SHALL PROVIDE SATISFACTORY DEWATERING AND DRAINAGE OF EXCAVATIONS. SEE DEWATERING AND DRAINAGE IN THE TECHNICAL SPECIFICATIONS FOR MORE DETAILED INFORMATION.

21. THE CONTRACTOR IS RESPONSIBLE FOR MAKING SURE THAT US ROUTE 11, LOCAL ROADS, AND PARKING LOTS ARE CLEAR OF DEBRIS AND MUD ON A DAILY BASIS DURING THE ENTIRE CONSTRUCTION PROCESS.

22. EXCAVATIONS AND TRENCHING SHALL BE PERFORMED IN ACCORDANCE WITH STATE OF NEW YORK INDUSTRIAL CODE, RULE 23, O.S.H.A. TITLE 29, PART 1926, NEW YORK STATE DEPARTMENT OF LABOR, TITLE 12, PART 23, AND ALL OTHER APPLICABLE SAFETY STANDARDS AND CODES.

23. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE AWARE OF AND TO CONFORM WITH ALL RULES AND RESPONSIBILITIES ASSOCIATED WITH PROVIDING A SAFE WORK PLACE. THE CONTRACTOR MUST COMPLY WITH OSHA 29 CFR PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION.

24. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGE CAUSED BY HIS OPERATIONS TO EXISTING FACILITIES. ALL DAMAGE TO THE EXISTING FACILITIES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE, AT NO ADDITIONAL COST.

25. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION OPERATIONS WITH ANY AND ALL OTHER CONSTRUCTION ACTIVITIES WHICH MAY BE OCCURRING SIMULTANEOUSLY IN THE VICINITY OF THE SITE.

26. THE CONTRACTOR SHALL POST WARNING SIGNS AT ALL APPROACHES TO THE PROJECT AND AT CONSTRUCTION ENTRANCES. THE CONTRACTOR TO PROVIDE FLAGMEN WHEN NECESSARY.

27. PRESENCE OF HAZARDOUS MATERIALS SHALL BE BROUGHT TO THE ENGINEERS OR OWNERS IMMEDIATE ATTENTION.

28. DISPOSAL OF ALL CONSTRUCTION DEMOLITION DEBRIS SHALL BE IN ACCORDANCE WITH THE LOCAL AND 6 NYS CRR PART 360, PLUS OTHER APPLICABLE CODES. DISPOSAL SHALL BE AT THE CONTRACTOR'S EXPENSE.

29. THE CONTRACTOR IS RESPONSIBLE FOR CLEARING OF DEBRIS AND MUD FROM THE SITE AND FROM ANY ADJOINING PROPERTIES ON A DAILY BASIS DURING THE ENTIRE CONSTRUCTION PROCESS.

30. PAVED AREAS WILL BE SAWCUT PRIOR TO EXCAVATION AND PAVING OPERATIONS. SAWCUT AREAS WILL BE TACK COATED PRIOR TO PAVING. TACK COAT SHALL MEET THE REQUIREMENTS OF ASPHALT EMULSION FOR TACK COAT, NYS DOT TABLE 702.7.

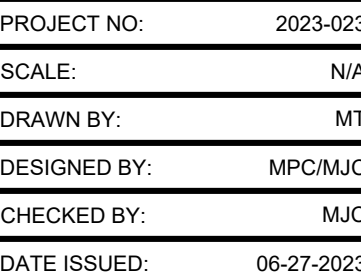
31. THE CONTRACT DOCUMENTS ALWAYS SUPERCEDE SUBMITTALS, SHOP DRAWINGS, OR ANY "OTHER" DOCUMENTS UNLESS INDICATED OTHERWISE BY THE ENGINEER. IN THE EVENT OF "OTHER" DOCUMENTS CONFLICTING WITH THE CONTRACT DOCUMENTS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BRING IT TO THE ATTENTION OF THE ENGINEER AS SOON AS IT IS DISCOVERED.

32. THE DETAIL PLANS AND SPECIFICATIONS FOR THE CONTRACT HAVE BEEN PREPARED WITH CARE AND ARE INTENDED TO SHOW AS CLEARLY AS IS PRACTICABLE THE WORK REQUIRED TO BE DONE. THE CONTRACTOR MUST REALIZE, HOWEVER, THAT CONSTRUCTION DETAILS CAN NOT ALWAYS BE ACCURATELY ANTICIPATED AND THAT IN EXECUTING THE WORK, FIELD CONDITIONS MAY REQUIRE REASONABLE MODIFICATIONS IN THE DETAILS OF PLANS AND QUANTITIES OF WORK INVOLVED. WORK UNDER ALL ITEMS IN THE CONTRACT MUST BE CARRIED OUT TO MEET THESE FIELD CONDITIONS TO THE SATISFACTION OF THE ENGINEER AND IN ACCORDANCE WITH HIS INSTRUCTIONS AND THE CONTRACT SPECIFICATIONS.

33. THE CONTRACTOR SHOULD NOTE THAT ADDITIONAL WORK MAY BE REQUIRED AS THE CONTRACT PROGRESSES WHICH IS NOT SHOWN OR NOTED ON PLANS. THIS WORK SHALL BE PERFORMED BY THE CONTRACTOR ONLY AFTER BEING AUTHORIZED BY THE OWNER AND ENGINEER WITH ADDITIONAL PAYMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CONTRACT AGREEMENT WITH THE OWNER.

34. THE CONTRACTOR SHALL SUBMIT ANY TRAFFIC CONTROL PLANS TO GYMO ARCHITECTURE, ENGINEERING, & LAND SURVEYING D.P.C. PRIOR TO CONSTRUCTION ACTIVITIES.

ABBREVIATIONS	
AC	ACRES
BC	BOTTOM OF CURB
BLDG	BUILDING
BOT	BOTTOM
BW	BOTTOM OF WALL
C	CURVE
CB	CATCH BASIN
CF	CUBIC FEET
CI	CUBIC INCHES
CL OR ☞	CENTERLINE
CO	COUNTY
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
DA	DELTA ANGLE
DA# OR DA NO.	DRAINAGE AREA NUMBER
DI	DUCTILE IRON
DIA	DIAMETER
DWG	DRAWING
DYLL	DOUBLE YELLOW LANE LINE
E	EAST
EG	EXISTING GRADE
EL	ELEVATION
ESC	EROSION AND SEDIMENT CONTROL
FF	FINISHED FLOOR
FG	FINISHED GRADE
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HYD	HYDRANT
IPF	IRON PIPE FOUND
IPS	IRON PIPE SET
INT	INTERSECTION
INV	INVERT
L	LENGTH
LF	LINEAR FEET
MAX	MAXIMUM
MEG	MATCH EXISTING GRADE
MIN	MINIMUM
N	NORTH
N/A	NOT APPLICABLE
NO. OR #	NUMBER
NTS	NOT TO SCALE
NYSDC	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NYSDOT	NEW YORK STATE DEPARTMENT OF TRANSPORTATION
NYSDOH	NEW YORK STATE DEPARTMENT OF HEALTH
OU	OVERHEAD UTILITY LINE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PT	POINT OF TANGENT
PVC	POLYVINYL CHLORIDE PIPE
R	RADIUS OR RADII
RCP	REINFORCED CONCRETE PIPE
ROC	RUN OF CRUSHER
ROW	RIGHT OF WAY
S	SOUTH
SAN	SANITARY
SB	SETBACK
SDR	STANDARD DIMENSION RATIO
SMH	SANITARY MANHOLE
STMH	STORM MANHOLE
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
SWLL	SINGLE WHITE LANE LINE
TC	TOP OF CURB
TL	TANGENT LENGTH
TOC	TIME OF CONCENTRATION
(TYP)	TYPICAL
TW	TOP OF WALL
TS & V	TAPPING SLEEVE AND VALVE
UNO	UNLESS NOTED OTHERWISE
W	WEST



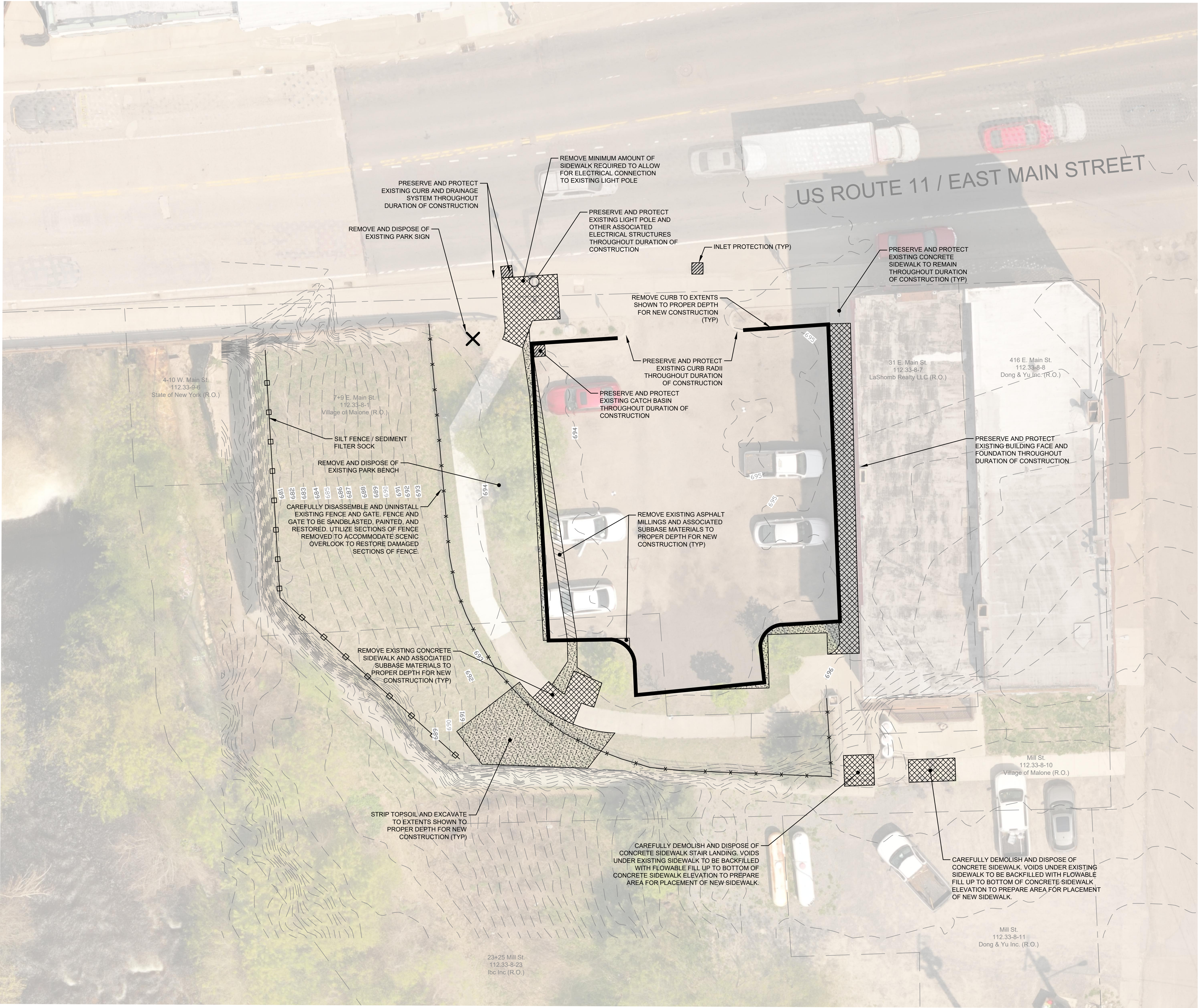
VILLAGE OF MALONE OVERLOOK  
7+9 EAST MAIN STREET  
VILLAGE OF MALONE, COUNTY OF FRANKLIN, STATE OF NEW YORK

# CONSTRUCTION DOCUMENTS

# G001



PLOT TIME: 6/27/2023 8:41:25 AM  
PROJECT LOCATION: C:\Users\jstaples\Documents\GYMO\2023\023 Village of Malone, Overlook - Documents\04\_Engineering\01\_Drawings\Site.dwg

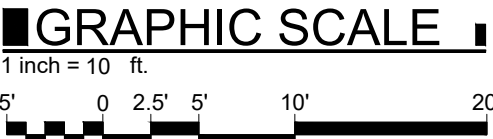


- GENERAL NOTES**
- PARCEL AND HIGHWAY BOUNDARIES ARE BASED ON AVAILABLE TAX MAPPING AND SHOULD BE CONSIDERED APPROXIMATE ONLY.
  - REPUTED OWNERS ARE BASED ON DEVELOPMENT AUTHORITY IF THE NORTH COUNTRY INTERNET MAPPING APPLICATION.
  - EXISTING ELEVATION DATA INDICATED ON THE PLANS IS BASED ON PUBLICLY AVAILABLE LIDAR DATA SUPPLEMENTED WITH FIELD GATHERED GPS DATA IN THE OVERLOOK AREA.

- GENERAL DEMOLITION NOTES:**
- WHEN REMOVING SECTIONS OF CONCRETE SIDEWALK, REMOVE ENTIRE FLAG(S) OF CONCRETE TO NEAREST JOINT.

EXISTING LEGEND	
	HIGHWAY BOUNDARY
	PARCEL BOUNDARY
	MINOR CONTOUR LINE
	MAJOR CONTOUR LINE

PROPOSED LEGEND	
	PARK SIGN REMOVAL
	ASPHALT MILLING DEMOLITION
	CONCRETE REMOVAL
	CURB REMOVAL
	STRIP TOPSOIL AND EXCAVATE
	FENCE REMOVAL
	SILT FENCE / SEDIMENT FILTER SOCK
	INLET PROTECTION



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OF ALTERATION.



PROJECT NO: 2023-023  
SCALE: 1" = 10'  
DRAWN BY: MT  
DESIGNED BY: MPC/MJC  
CHECKED BY: MJC  
DATE ISSUED: 06-27-2023

DEMOLITION / EROSION CONTROL PLAN

VILLAGE OF MALONE OVERLOOK  
7+9 EAST MAIN STREET  
VILLAGE OF MALONE, COUNTY OF FRANKLIN, STATE OF NEW YORK

LAST REVISED: NA

CONSTRUCTION  
DOCUMENTS

DRAWING NO.

C101



PROJECT LOCATION: C:\Users\mshapiro\Documents\GYMO\2023\023 Village of Malone Overlook - Documentation\04\_Engineering\01\_Drawings\Site.dwg  
PLOT TIME: 6/27/2023 8:44:49 AM



#### GENERAL NOTES

- PARCEL AND HIGHWAY BOUNDARIES ARE BASED ON AVAILABLE TAX MAPPING AND SHOULD BE CONSIDERED APPROXIMATE ONLY.
- REPUTED OWNERS ARE BASED ON DEVELOPMENT AUTHORITY IF THE NORTH COUNTRY INTERNET MAPPING APPLICATION.
- EXISTING ELEVATION DATA INDICATED ON THE PLANS IS BASED ON PUBLICLY AVAILABLE LIDAR DATA SUPPLEMENTED WITH FIELD GATHERED GPS DATA IN THE OVERLOOK AREA.

#### GENERAL CONSTRUCTION NOTES:

- AT SOME INSTANCES WHERE NEW WORK IS PLACED IN THE SAME LOCATION OR AREA AS OLD WORK, THE CONTRACTOR IS INSTRUCTED TO MATCH THE EXISTING DIMENSIONS OF THE WORK AND PROVIDED A DIMENSION IN PARENTHESES. THE INTENT OF THE DIMENSION IN PARENTHESES IS TO PROVIDE A REFERENCE FOR THE CONTRACTOR, HOWEVER MATCHING THE DIMENSIONS OF THE EXISTING WORK AT THESE LOCATIONS TAKES PRIORITY OVER ACHIEVING THE SPECIFIED DIMENSION.
- AT SOME INSTANCES WHERE NEW WORK AND EXISTING WORK TIE TOGETHER, THE CONTRACTOR IS PROVIDED A SPOT ELEVATION AND/OR INSTRUCTED TO MATCH EXISTING GRADE. THE INTENT OF THE SPOT ELEVATION IS TO PROVIDE A REFERENCE FOR THE CONTRACTOR, HOWEVER MATCHING EXISTING GRADE AT THESE LOCATIONS TAKES PRIORITY OVER ACHIEVING THE SPECIFIED ELEVATION.
- BEFORE ANY GRADING, UTILITY, OR OTHER ELEVATION DEPENDENT ACTIVITIES COMMENCE, THE CONTRACTOR SHALL VERIFY TIE-IN ELEVATIONS WITH THE PLANS AND REPORT TO ENGINEER SHOULD THE FIELD ELEVATION AND SPECIFIED ELEVATION VARY BY MORE THAN 0.10'.

#### PLANT MATERIAL SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
CS	CATALPA SPECIOSA	NORTHERN CATALPA	2" CAL.
AH	AESCULUS HIPPOCASTANUM	HORSE CHESTNUT BUCKEYE	2" CAL.
QR	QUERCUS RUBRA	NORTHERN RED OAK	2" CAL.

#### EXISTING LEGEND

---	HIGHWAY BOUNDARY
---	PARCEL BOUNDARY
---694---	MINOR CONTOUR LINE
---695---	MAJOR CONTOUR LINE

#### PROPOSED LEGEND

---X---	RESTORED FENCE
---X---	OVERLOOK FENCE
---	CONCRETE
---	TOPSOIL AND GRASS SEED
---	GRASSTONE PAVER COURSE
---	PORCELAIN PAVERS
---	REPLACE ASPHALT MILLINGS
---	MAJOR GROUND CONTOUR
---	MINOR GROUND CONTOUR
---	SPOT GRADE
---	UNDERGROUND ELECTRIC LINE
---	MALONE PARK SIGN
---	DECORATIVE LIGHT FIXTURE
---	PARK BENCH
---	TREE



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PROJECT NO: 2023-023

SCALE: 1" = 10'

DRAWN BY: MT

DESIGNED BY: MPC/MJC

CHECKED BY: MJC

DATE ISSUED: 06-27-2023

SITE DEVELOPMENT PLAN

VILLAGE OF MALONE OVERLOOK  
7+9 EAST MAIN STREET  
VILLAGE OF MALONE, COUNTY OF FRANKLIN, STATE OF NEW YORK

LAST REVISED: NA

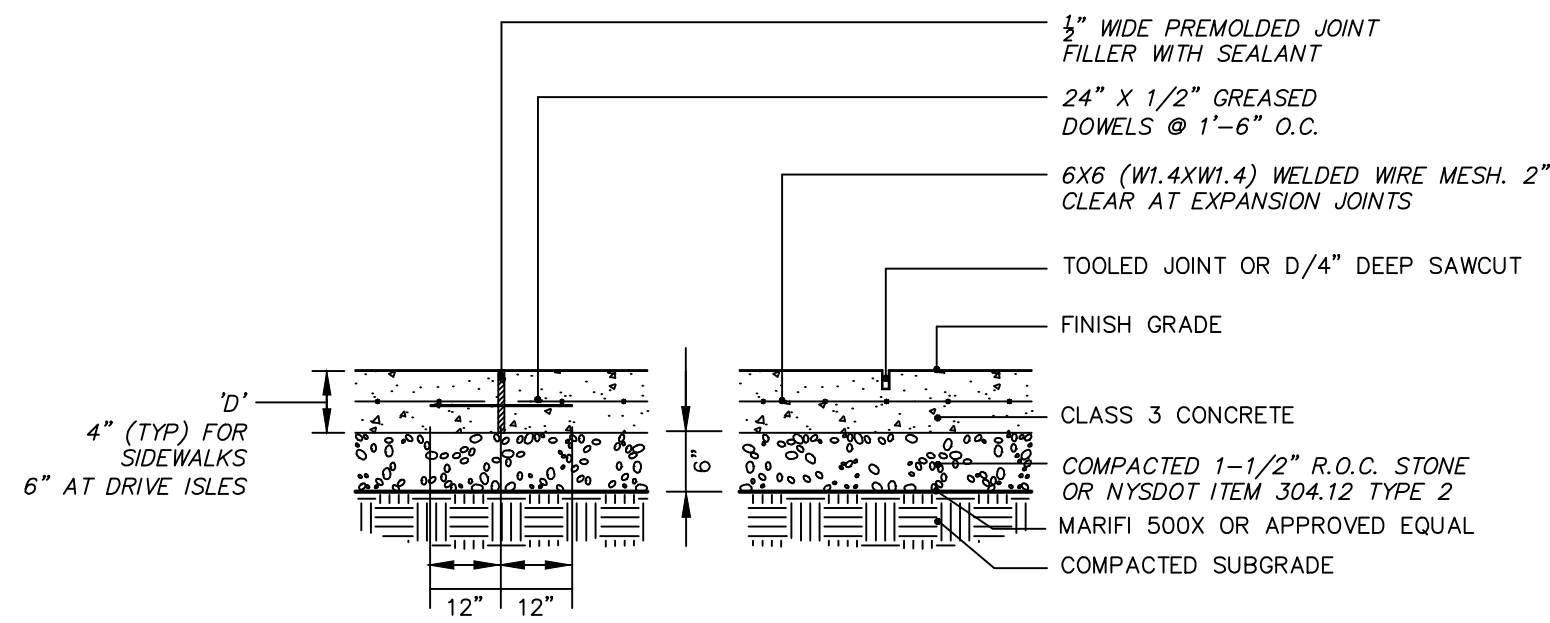
CONSTRUCTION  
DOCUMENTS

DRAWING NO.

C102



PLOT TIME: 6/27/2023 8:02:44 AM  
PROJECT LOCATION: C:\Users\mjc\Documents\GYMO\2023\023 Village of Malone, Overlook - Documentation\GYMO\_Engineering\01 Drawings\Details.dwg



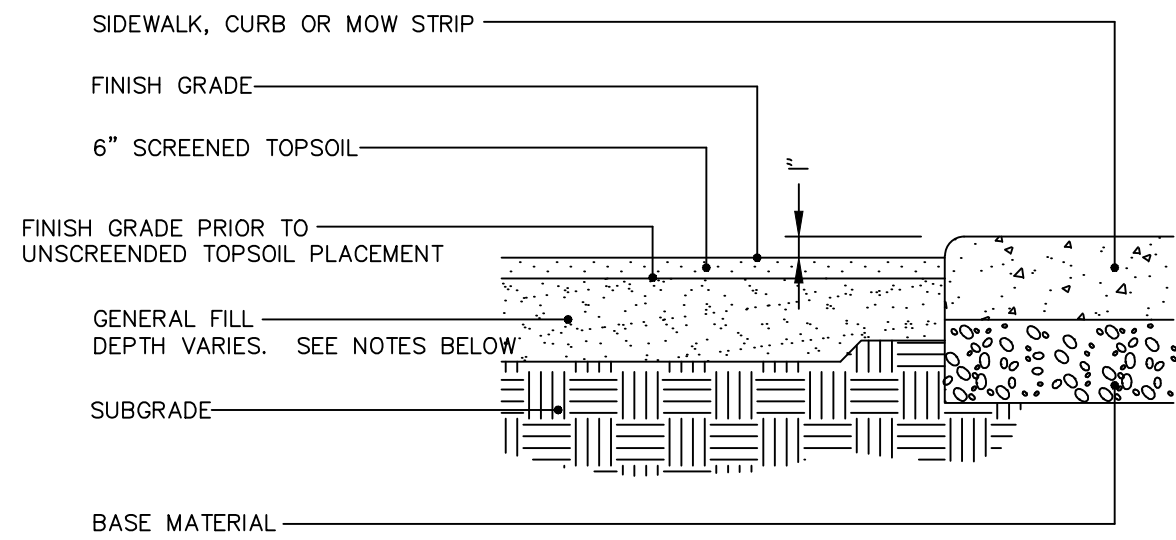
EXPANSION JOINT

CONTRACTION JOINT

NOTES:

1. CROSS SLOPE IN SIDEWALK TO BE MAX. 2% MIN. 1%
2. CONTRACTION JOINTS TO BE SPACED 5' O.C. MAX.
3. EXPANSION JOINTS TO BE SPACED 20' O.C. MAX.
4. WIDTH: PER SITE PLAN

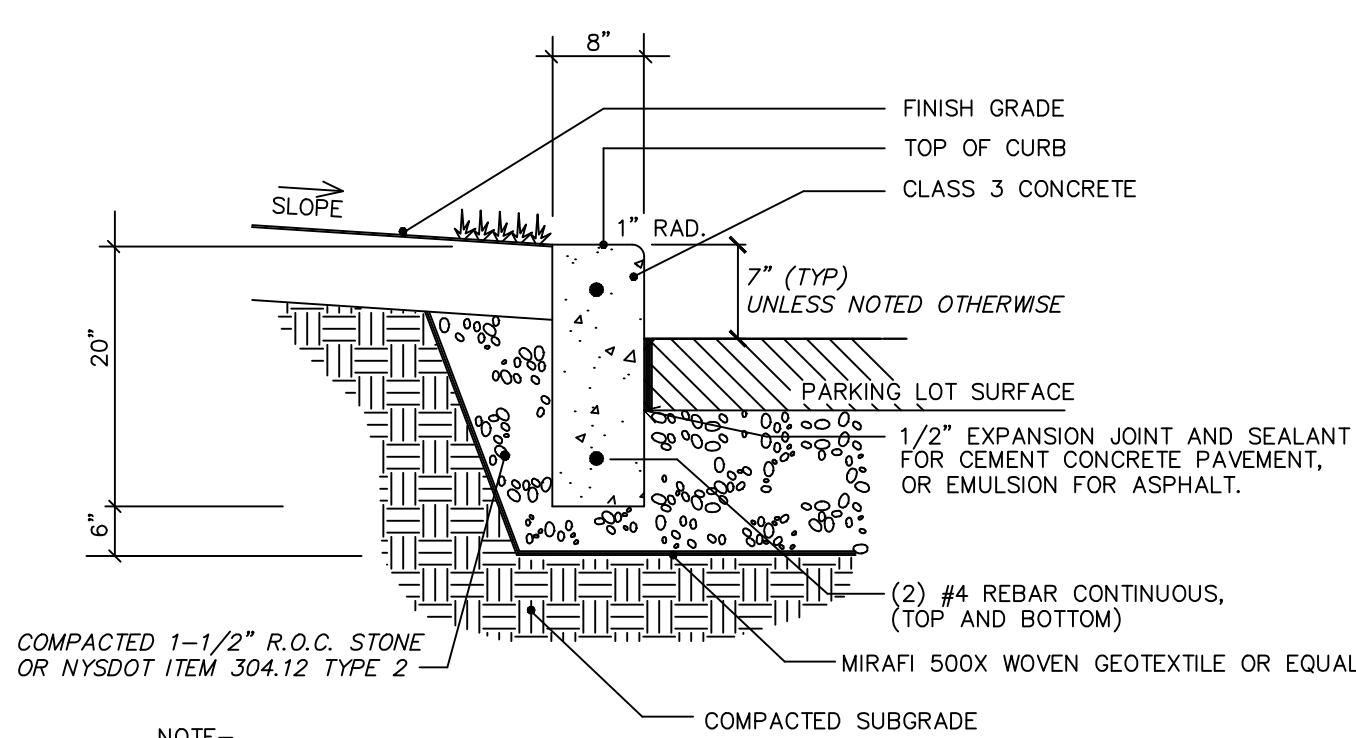
1	TYPICAL CONCRETE WALK SECTION AND JOINT DETAIL	
C501	NOT TO SCALE	D154-01



NOTES:

1. CRASSSED AREAS - NO GENERAL FILL REQUIRED
2. PLANTING AREAS - GENERAL FILL SHALL BE 14" IN DEPTH
3. TREE PLANTING AREAS - GENERAL FILL SHALL BE 20" IN DEPTH & 10" IN DIAMETER.

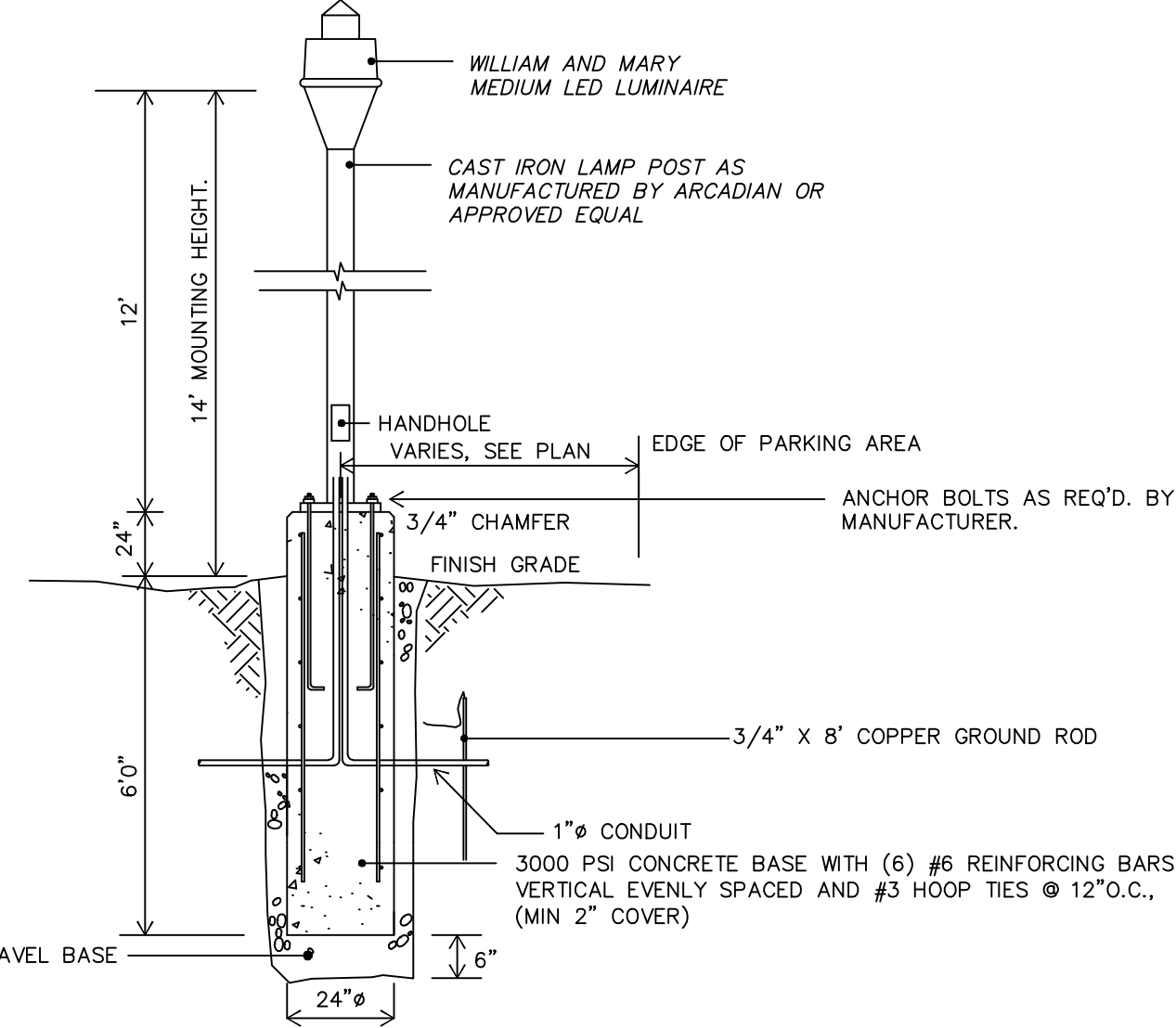
2	SOIL PROFILE - VARIOUS AREAS	
C501	NOT TO SCALE	D132-02



NOTE:

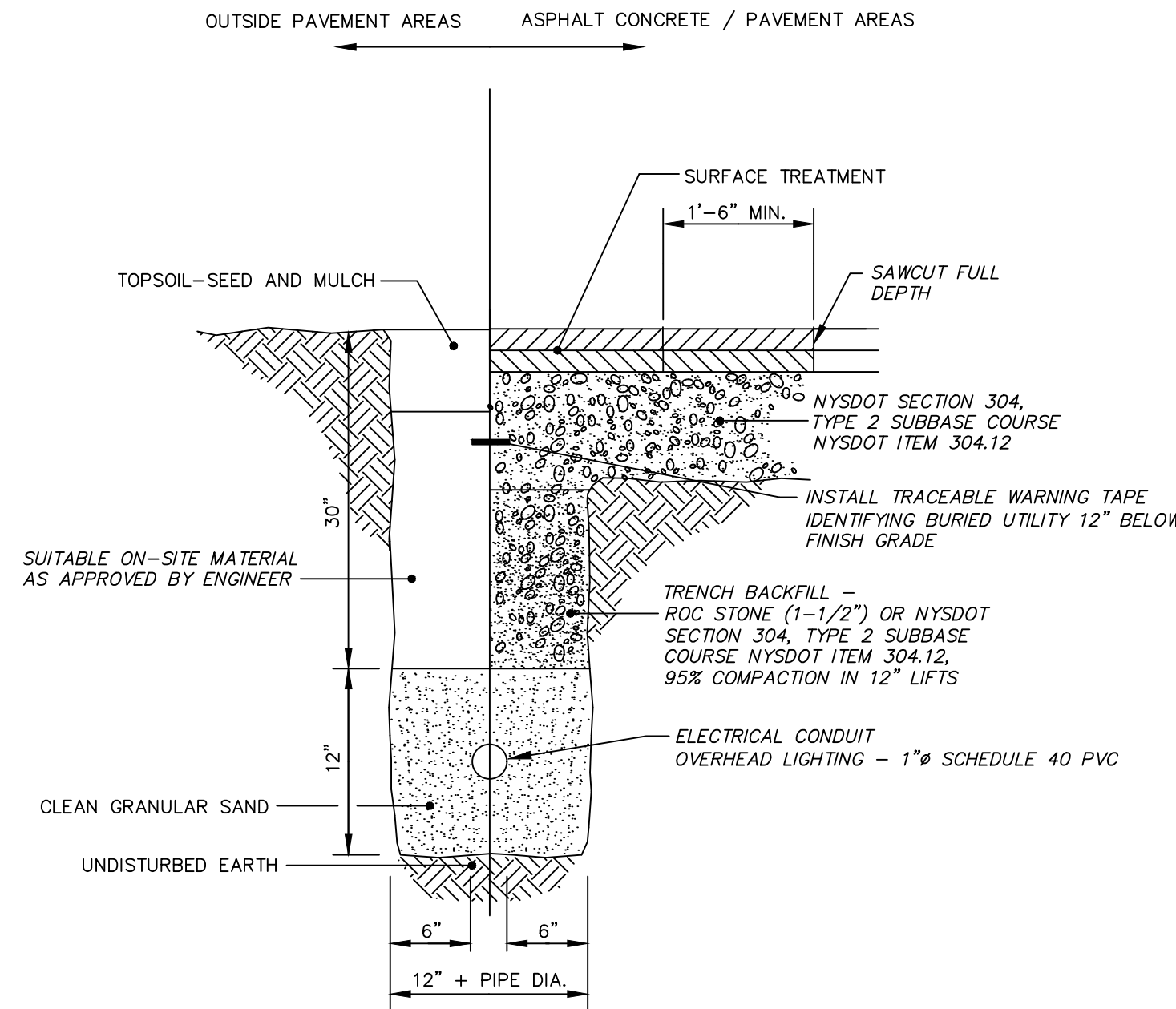
1. CONTROL JOINTS TO BE SPACED 10' O.C. MAX. EXPANSION JOINTS TO BE SPACED 20' O.C. MAX. EXPANSION JOINT TO BE COVERED WITH SEALANT.

3	TYPICAL CONCRETE CURB/NO WALK DETAIL	
C501	NOT TO SCALE	D151-01



- NOTE:
1. THE CONTRACTOR SHALL INSTALL A PCR-1 PHOTOCONTROL RECEPTACLE AS MANUFACTURED BY HUBBELL OR APPROVED EQUAL, ON THE FIRST POLE ON THIS CIRCUIT. PHOTOCONTROL RECEPTACLE SHALL BE WIRED TO CONTROL ALL THE LIGHT FIXTURES.

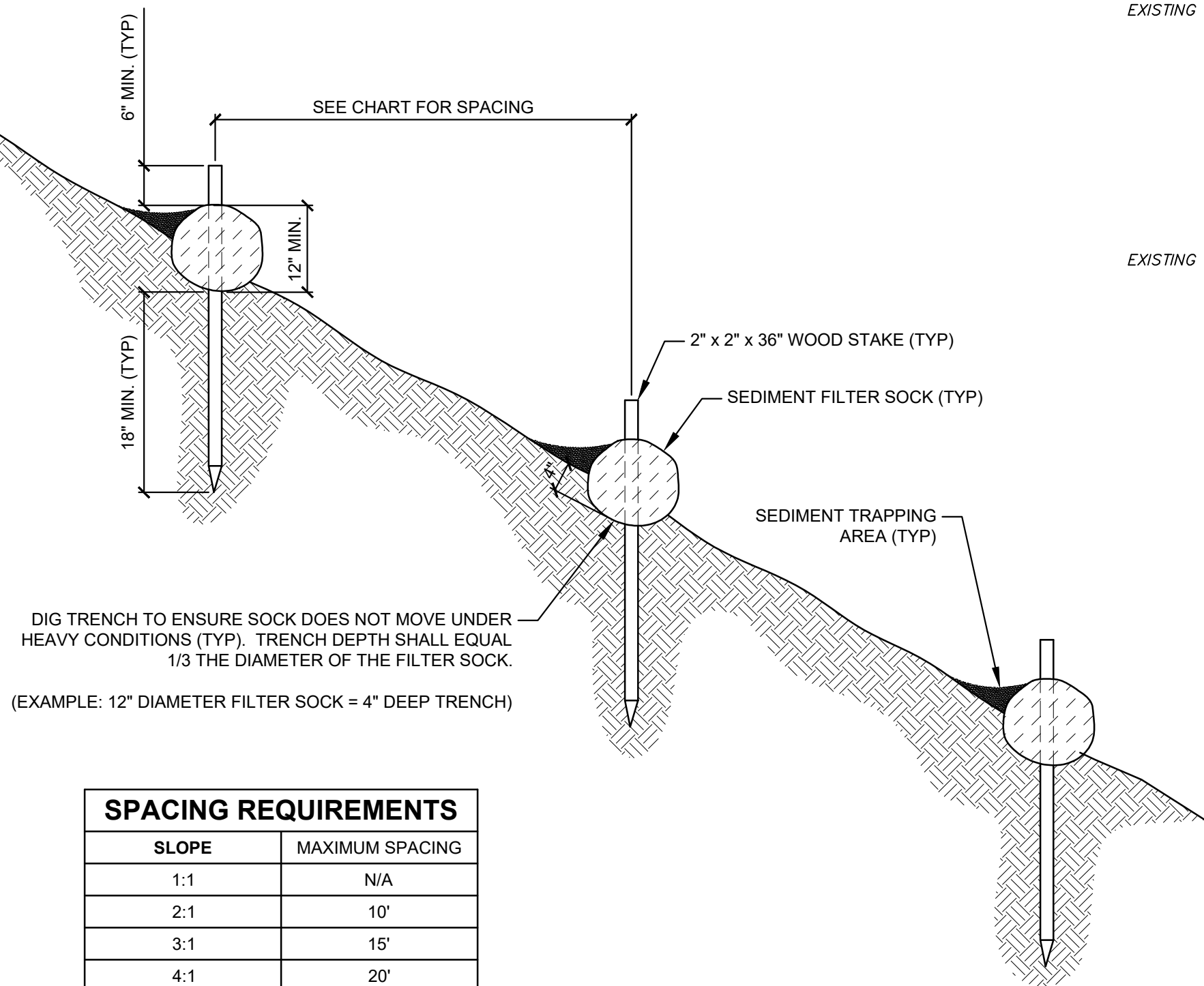
4	TYPICAL LIGHT POLE BASE DETAIL	
C501	NOT TO SCALE	E101-01



NOTES:

1. TRENCHES LOCATED ON ROAD SHOULDERS SHALL BE TREATED THE SAME AS UNDER PAVEMENT
2. ELECTRICAL LINE TRENCH TO BE LOCATED A MINIMUM OF 2 FT. FROM COMMUNICATION LINE TRENCH

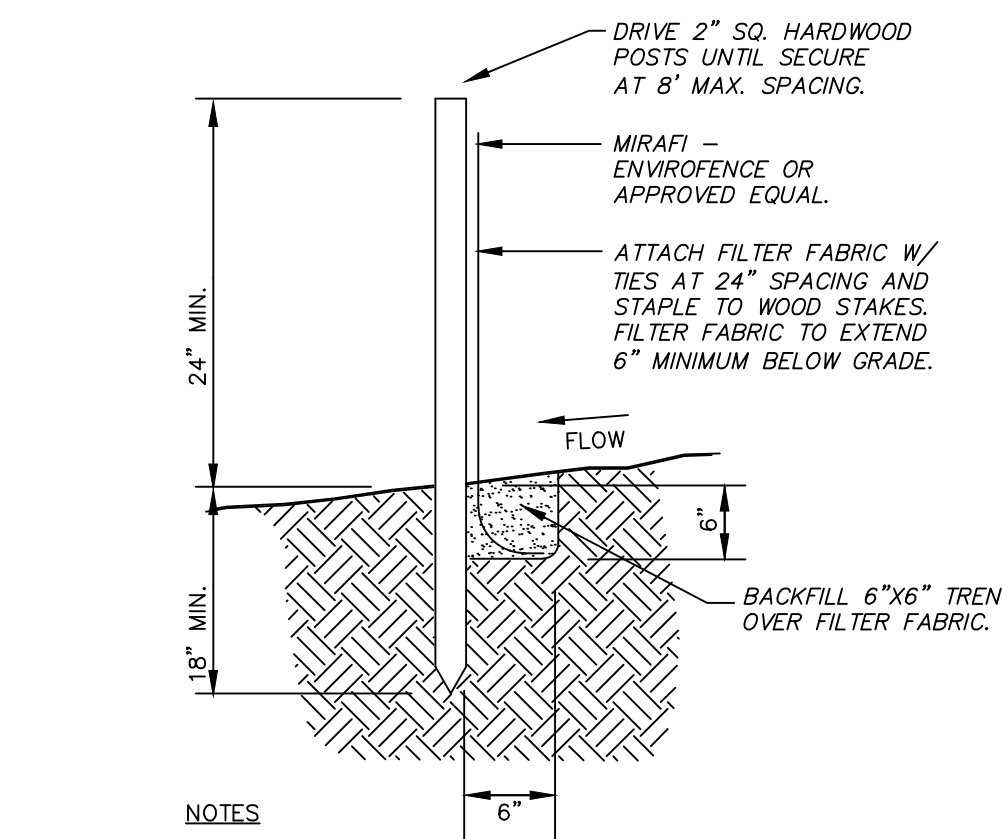
5	TYPICAL ELECTRICAL TRENCH DETAIL	
C501	NOT TO SCALE	E102-01



SPACING REQUIREMENTS

SLOPE	MAXIMUM SPACING
1:1	N/A
2:1	10'
3:1	15'
4:1	20'

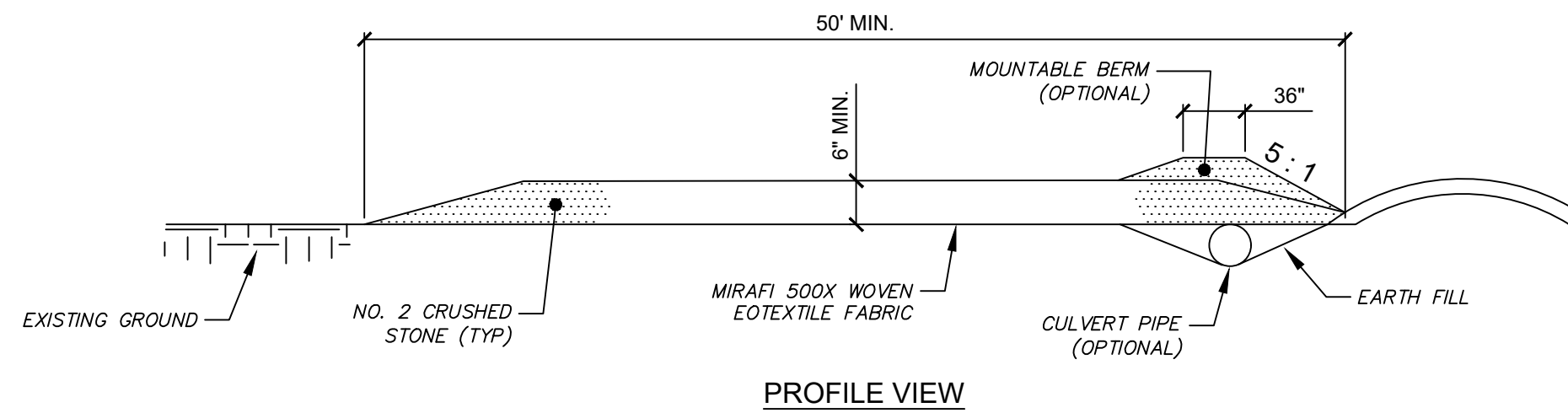
9	SEDIMENT FILTER SOCK DETAIL	
C501	NOT TO SCALE	



NOTES:

1. SILTATION FENCE TO REMAIN IN PLACE UNTIL LAWNS HAVE BEEN ESTABLISHED AND/OR FINISH SURFACES HAVE BEEN INSTALLED.
2. SILTATION FENCE TO BE CHECKED AND MAINTAINED THROUGHOUT CONSTRUCTION. SILT ACCUMULATIONS SHALL BE REMOVED PERIODICALLY AS REQUIRED.
3. SECTIONS OF FILTER FABRIC TO HAVE 12" OVERLAP AT WOOD STAKES AND STAPLED IN PLACE.

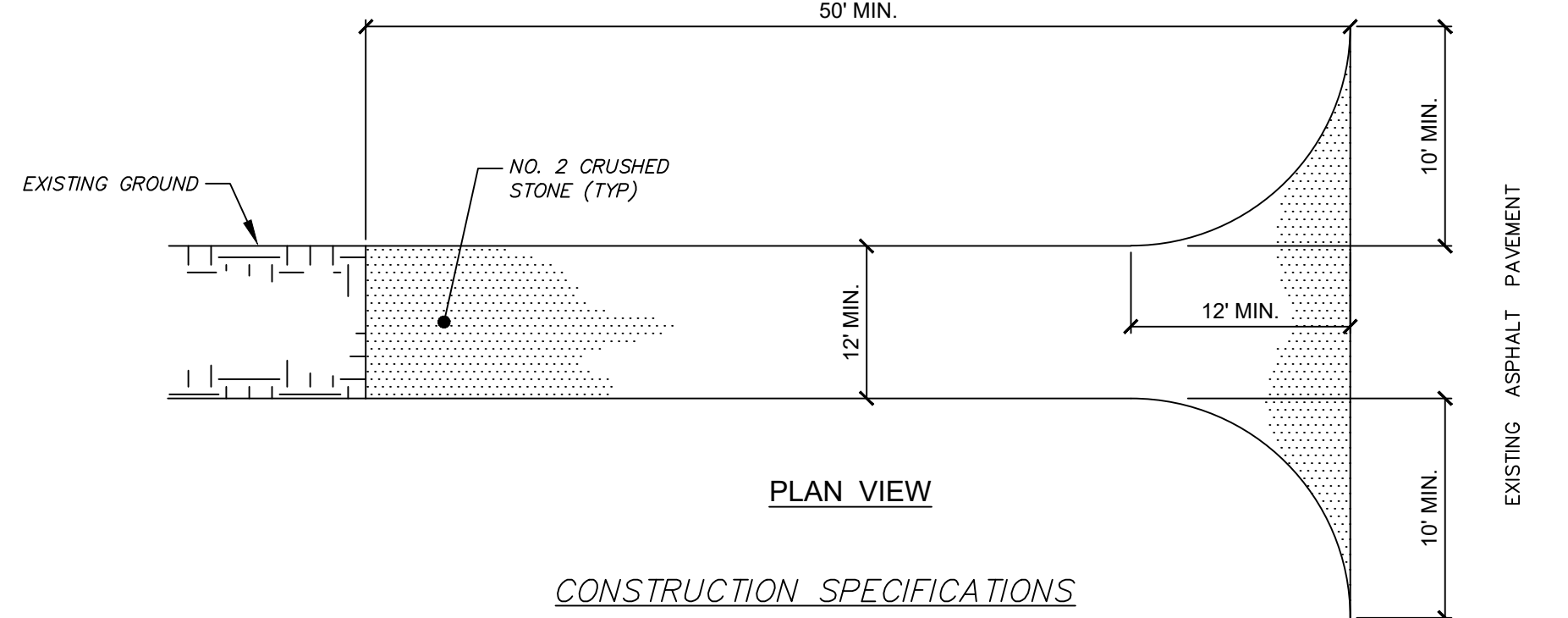
6	TYPICAL SILTATION FENCE DETAIL	
C501	NOT TO SCALE	D120-01



NOTES:

1. FENCE SYSTEM SHALL BE CONSTRUCTED BY COMPONENTS OF A PRE-MANUFACTURED SYSTEM
2. ALL POSTS, RAILS, AND FITTINGS TO BE TYPE 316 STAINLESS STEEL, MATTE BLACK FINISH

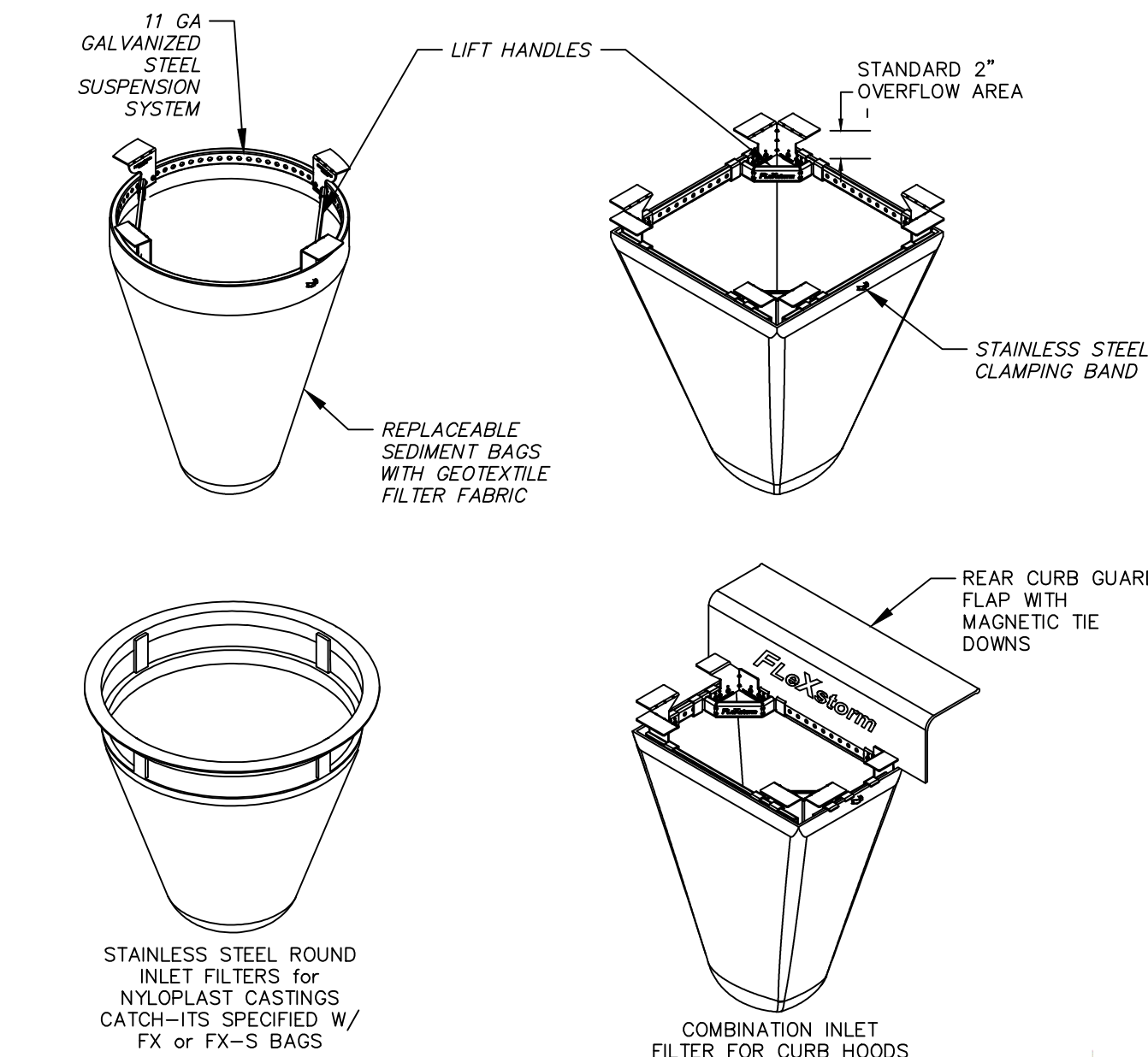
7	OVERLOOK FENCE DETAIL	
C501	NOT TO SCALE	



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1" - 4" STONE OR RECLAIMED / RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENTIAL 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 THE STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARDS CONSTRUCTION ENTRANCES 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 TRACED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AN WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPED DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

10	STABILIZED CONSTRUCTION ENTRANCE DETAIL	
C501	NOT TO SCALE	D132-02



TYPICAL ROUND INLET FILTER

NOTES:

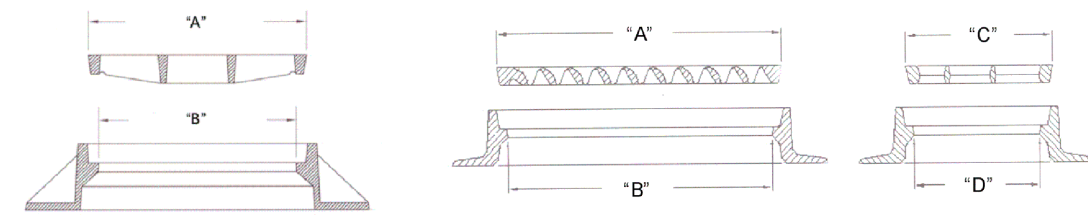
1. ALL FRAMING IS CONSTRUCTED OF CORROSION RESISTANT STEEL (ZINC PLATED OR GALVANIZED) FOR 7 YEAR MINIMUM SERVICE LIFE.
2. UPON ORDERING CONFIRMATION OF THE DOT CALL OUT, PRECAST OR CASTING MAKE AND MODEL. OR DETAILED DIMENSIONAL FORMS MUST BE PROVIDED TO CONFIGURE AND ASSEMBLE YOUR CUSTOMIZED FLEXSTORM INLET FILTER. PART NUMBER ALONE IS NOT SUFFICIENT.
3. INLET PROTECTION TO BE INSTALLED ON ALL CATCH BASINS AND TO BE REMOVED AFTER CONSTRUCTION ACTIVITIES ARE COMPLETE.
4. CONTRACTOR TO CLEAN INLET PROTECTION PRIOR TO FINISHING CONSTRUCTION ACTIVITIES.
5. FOR WRITTEN SPECIFICATIONS AND MAINTENANCE GUIDELINES VISIT WWW.INLETFILTERS.COM

TYPICAL RECTANGULAR INLET FILTER

STYLE	FRAME STYLE AND SIZE	Frame P/N:
ROUND	Small Round (up to 30.0" dia grates (A) dim)	62SRD
	Med Round (20.1" - 26.0" dia grates (A) up to 25" dia openings (B))	62MRD
	Large Round (26.1" - 32.0" dia grates (A) up to 30" openings (B))	62LRD
	XL Round (32.1" dia - 39" dia grates (A) up to 37" dia openings (B))	62XLRD
RECT / SQUARE	Small Rect / Square (up to 16" (B) x 16" (D) openings or 64" perimeter)	62SSQ
	Med Rect / Square (up to 24" (B) x 24" (D) openings or 96" perimeter)	62MSQ
	Large Rect / Square (up to 36" (B) x 24" (D) openings or 120" perimeter)	62LSQ
	XL Rect / Square (side by side 2 as set to fit up to 48" (B) x 36" (D) openings)	62XLSQ
COMBO INLETS	Small Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62SCB
	Med Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62MCB
	Large Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62LCB
	XL Rect / Square (ref Rect sizing; shipped with Magnetic Curb Flaps)	62XLCB
NYLOPLAST	12" diameter Nyloplast castings (Stainless Steel Framing standard)	6212NY
	15" diameter Nyloplast castings (Stainless Steel Framing standard)	6215NY
	18" diameter Nyloplast castings (Stainless Steel Framing standard)	6218NY
	24" diameter Nyloplast castings (Stainless Steel Framing standard)	6224NY
	30" diameter Nyloplast castings (Stainless Steel Framing standard)	6230NY

SPECIFICATIONS FOR STANDARD BAGS BY NOMINAL SIZE			
Nominal Bag Size	Solids Storage (CuFt)	Filtered Flow Rate at 50% Max (CFS) FX (Woven)	IL (NonWoven)
Small	1.6	1.2	0.9
Medium	2.1	1.7	1.3
Large	3.8	2.7	1.9
XL	4.2	3.6	2.6

2. SELECT YOUR BAG PART NUMBER				
FLEXSTORM FILTER BAGS	{22" depth}	{12" depth}	Clean Water Flow Rate (GPM/SqFt)	Min A.O.S. (US Sieve)
	STD Bag P/N	Short Bag P/N		
FX: Standard Woven Bag	FX	FX-S	200	40
IL: IDOT Non-Woven Bag	IL	IL-S	145	70



INSTALLATION NOTES:

1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE

DETAIL AND DESIGN INFORMATION SHOWN FOR "FLEXSTORM CATCH-IT FILTERS INLET PROTECTION" HAS BEEN PROVIDED BY ADVANCED DRAINAGE SYSTEMS, INC.

11	FLEXSTORM CATCH-IT FILTERS INLET PROTECTION DETAIL	
C501	NOT TO SCALE	D132-02

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SEAL:



PROJECT NO: 2023-023

SCALE: N/A

DRAWN BY: MT

DESIGNED BY: MPC/MJC

CHECKED BY: MJC

DATE ISSUED: 06-27-2023

DETAILS  
VILLAGE OF MALONE OVERLOOK  
VILLAGE OF MALONE OVERLOOK  
7+9 EAST MAIN STREET  
VILLAGE OF MALONE, COUNTY OF FRANKLIN, STATE OF NEW YORK

LAST REVISED: N/A

CONSTRUCTION  
DOCUMENTS

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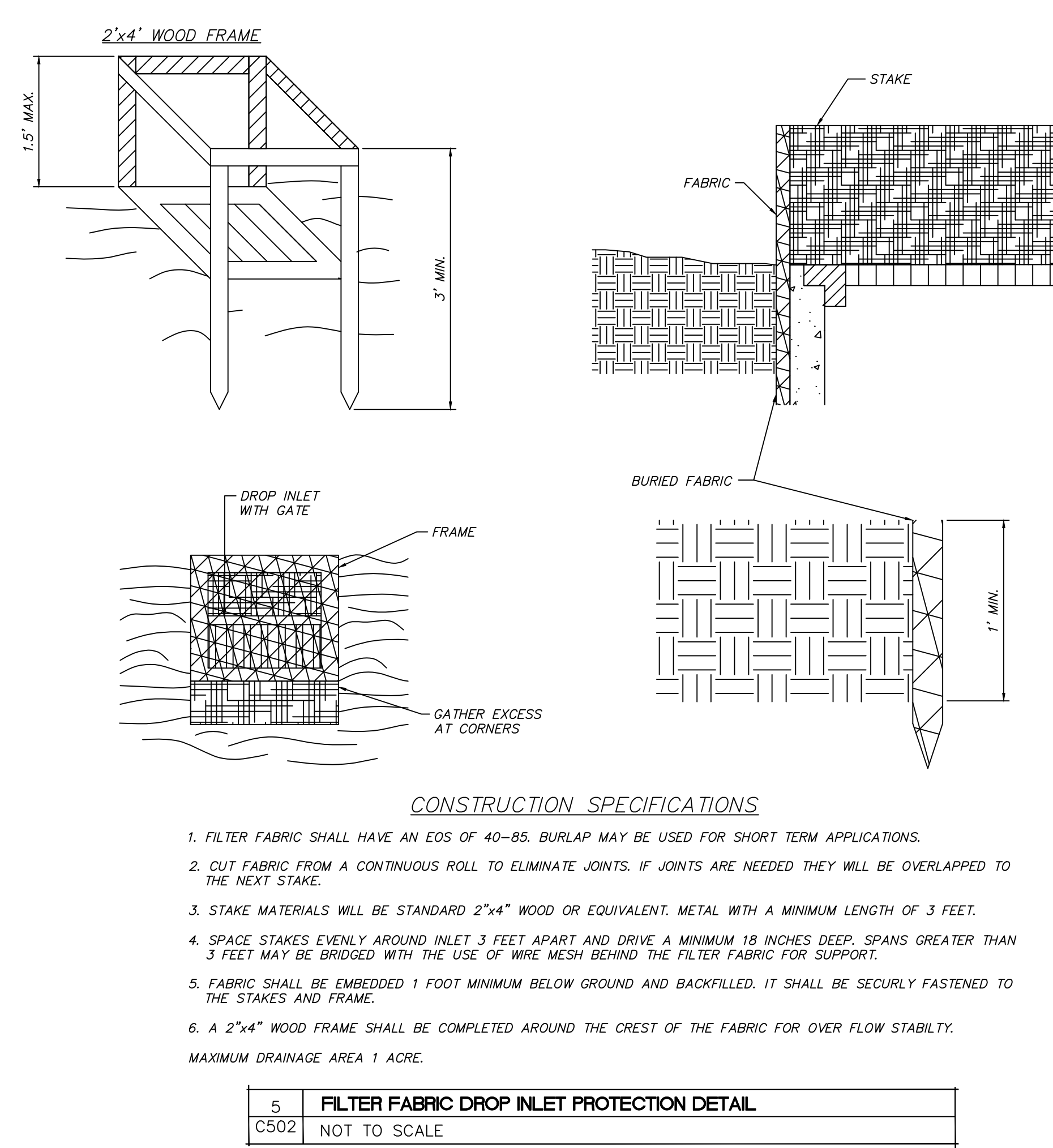
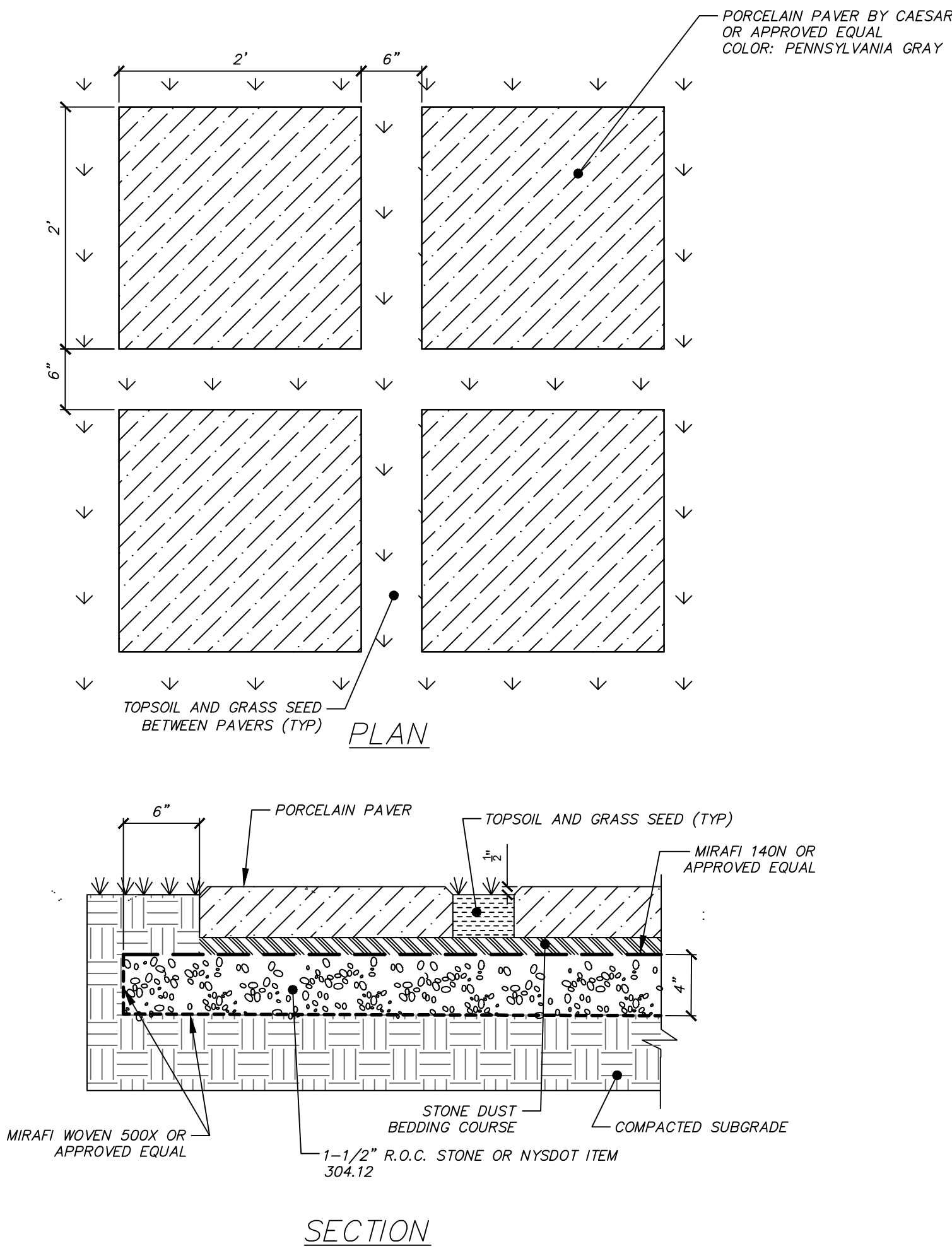
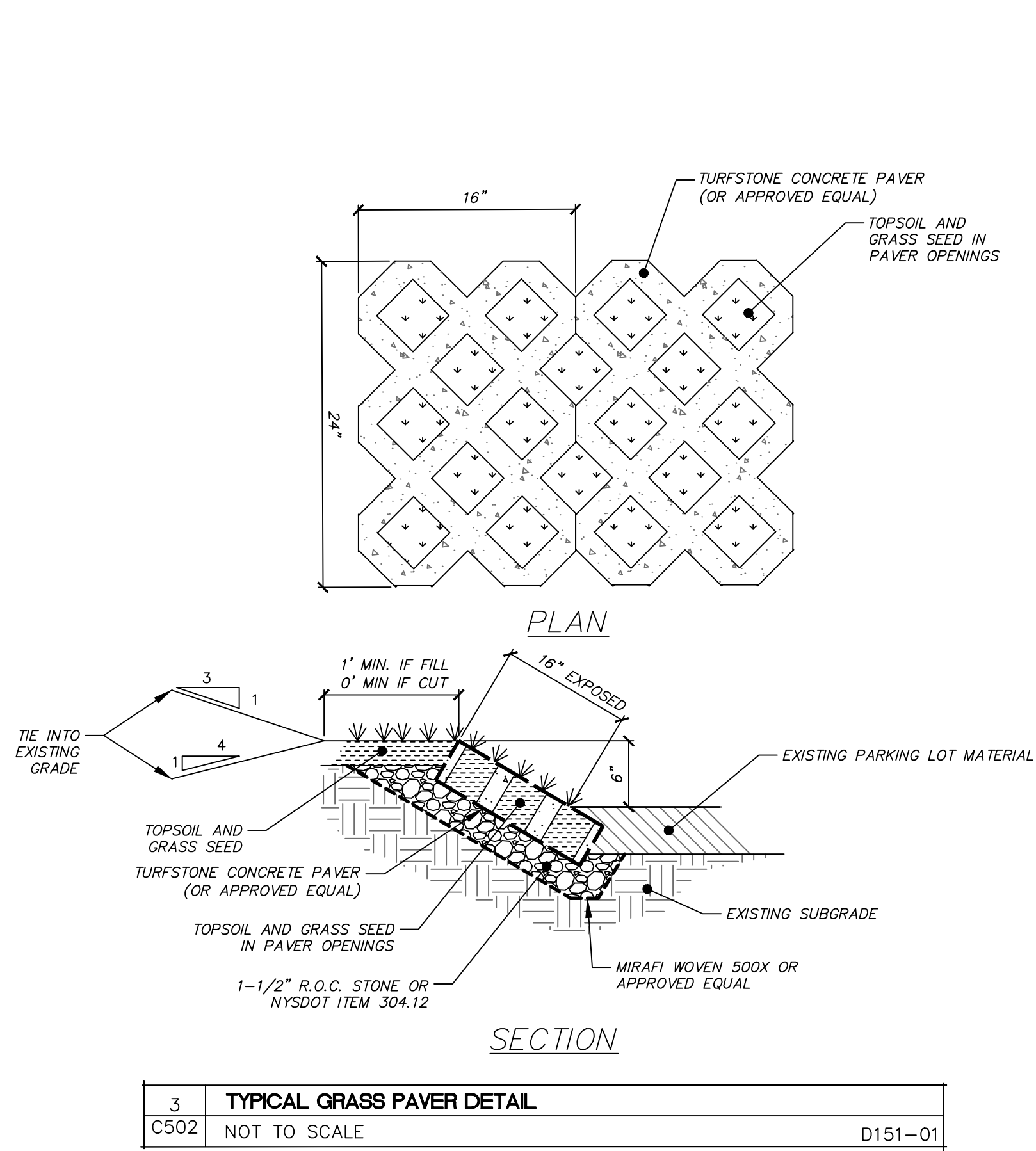
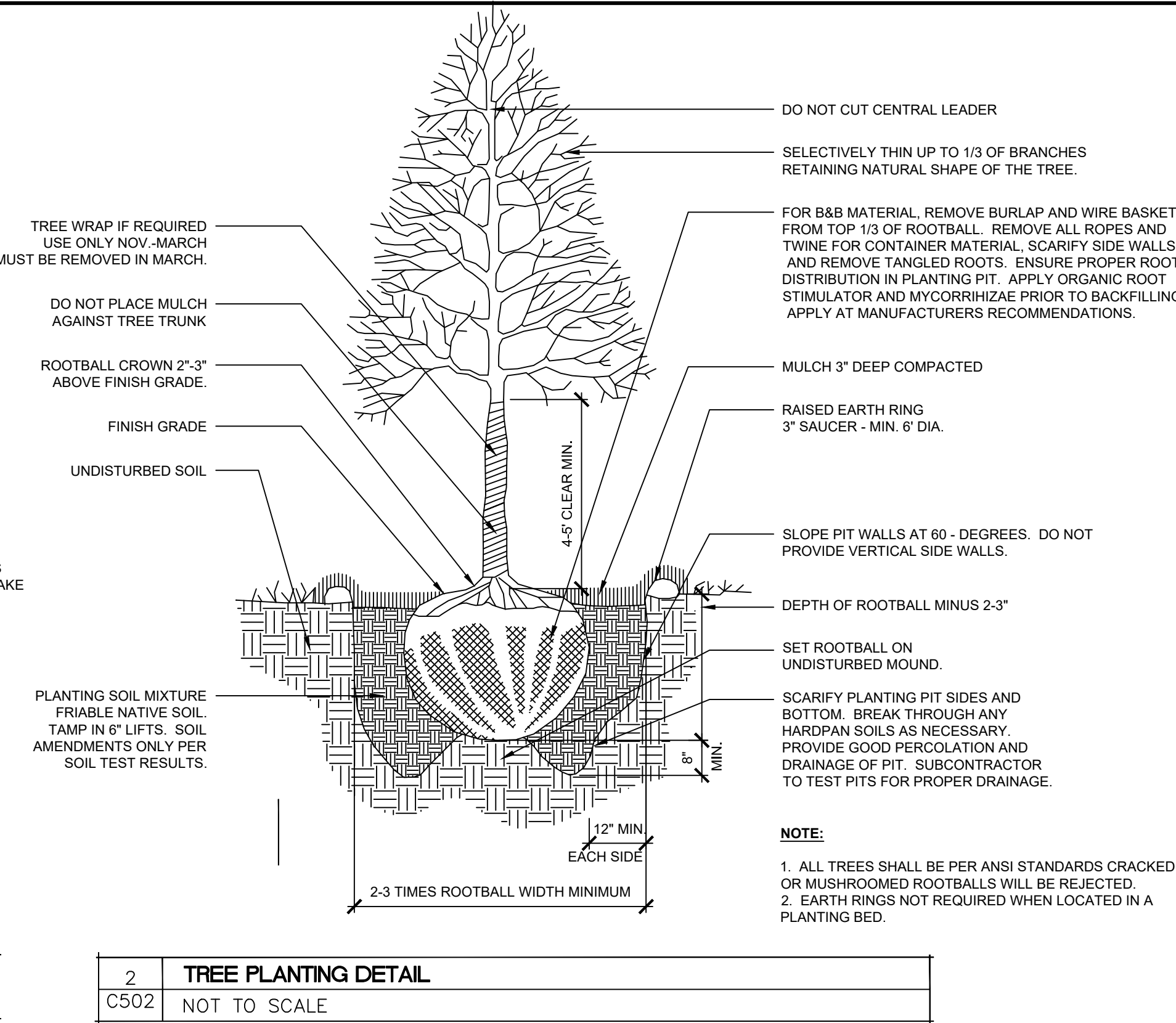
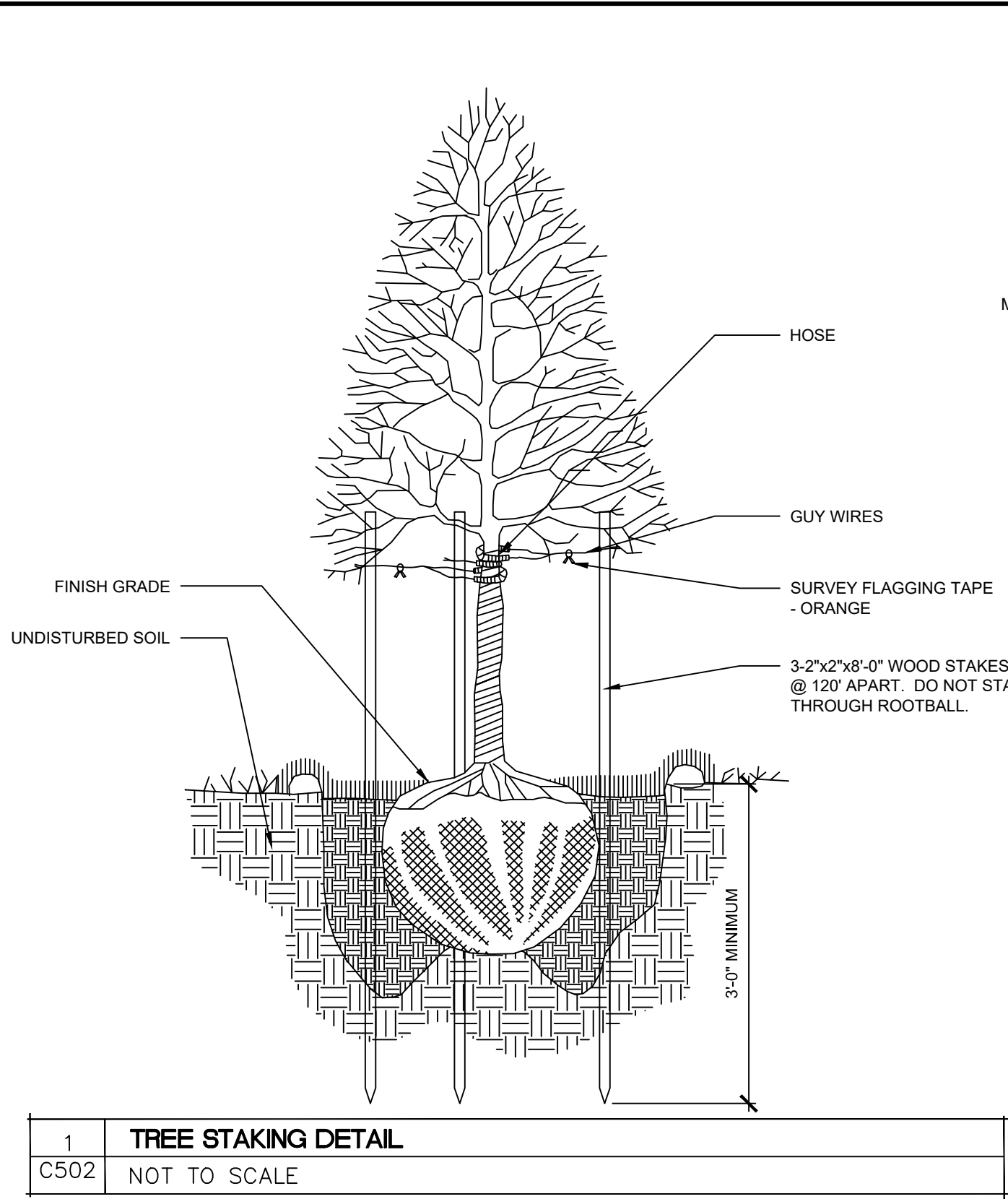
C501



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GENERAL TREE PLANTING NOTES:

- THESE NOTES ARE PRESENTED AS A "SUMMARY" OF THE WRITTEN SPECIFICATIONS ISSUED FOR THE PROJECT. REFER TO THE WRITTEN SPECIFICATIONS FOR ADDITIONAL DETAIL AND FULL PROJECT REQUIREMENTS.
- ANY QUANTITIES INDICATED ON THE DRAWINGS OR ON THE TREE MATERIAL SCHEDULE ARE PROVIDED FOR THE BENEFIT OF THE LANDSCAPE SUBCONTRACTOR BUT SHOULD NOT BE ASSUMED TO BE CORRECT. THE LANDSCAPE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE QUANTITIES INDICATED. ANY DISCREPANCIES NOTED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO INSTALLATION. IN THE EVENT OF A DISCREPANCY, THE GRAPHIC REPRESENTATIONS SHOWN ON THE DRAWINGS SHALL GOVERN.
- NO SUBSTITUTIONS AS TO SIZE, TYPE, SPACING, QUANTITY OR QUALITY OF TREE MATERIAL SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. CHANGES IN TREE MATERIAL MAY CONSTITUTE PLAN RE-APPROVAL.
- TREES SHALL BE SUPPLIED AT THE SIZES SPECIFIED ON THE DRAWINGS. THE SIZES SHOWN ARE THE MINIMUMS FOR EACH CATEGORY (HEIGHT, SPREAD, CALIPER, CONTAINER SIZE, ETC.) WHEN A RANGE OF SIZE IS GIVEN, 75% OF THE PLANTS SUPPLIED MUST MEET THE MAXIMUM RANGE SIZE, AND 25% OF THE PLANTS SUPPLIED SHALL BE THE MINIMUM RANGE SIZE SPECIFIED. THE PLANTS SUPPLIED MUST CONFORM TO ALL OF THE MINIMUM DIMENSIONS INDICATED. PLANTS OF LARGER SIZE MAY BE USED IF ACCEPTABLE TO THE ENGINEER AT NO ADDITIONAL COST AND IF SIZES OF CONTAINER OR ROOT BALLS, HEIGHT, AND SPREAD ARE INCREASED PROPORTIONATELY IN ACCORDANCE WITH ANSI Z60.1. ALL OTHER QUALITY REQUIREMENTS OF THE TREE MATERIAL MUST ALSO BE ADHERED.
- ALL TREES MUST BE NURSERY GROWN, BALL AND BURLAP (B&B) OR CONTAINER GROWN AS-SPECIFIED IN THE MATERIALS SCHEDULE. CONTAINER GROWN MATERIAL CAN BE SUBSTITUTED FOR B&B MATERIAL WITH WRITTEN APPROVAL BY THE D/B CONTRACTOR PRIOR TO INSTALLATION. ALL TREE MATERIALS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z-60.1, LATEST EDITION. ALL TREES SHALL COMPLY WITH ANSI Z-60.1 AND THE URBAN TREE FOUNDATION GUIDELINE FOR NURSERY TREE QUALITY, 2009 EDITION. ALL TREES SHALL BE HIGHEST QUALITY, FIRST CLASS REPRESENTATIVES OF THEIR SPECIES. SECONDS, CULLS, OR PARK GRADE MATERIAL WILL BE REJECTED.
- CALIPER SIZE IS NOT TO BE REDUCED. CALIPER MEASUREMENTS SHALL BE TAKEN IN ACCORDANCE WITH ANSI STANDARDS.
- ALL TREES MUST BE STRAIGHT TRUNK, HAVE A STRONG CENTRAL LEADER, FULL HEADED, AND MEET THE MINIMUM REQUIREMENTS. TREES WITH A "Y" SHAPE ARE NOT ACCEPTABLE. TREES THAT HAVE BEEN FRESHLY PRUNED TO MEET THESE SPECIFICATIONS SHALL BE REJECTED.
- THE TREES VEGETATIVE CANOPY SHOULD BE MOSTLY SYMMETRICAL AND FREE OF LARGE VOIDS OR FLAT SURFACE AREAS ON ONE SIDE.
- ALL STREET AND SHADE TREES SHALL HAVE A MINIMUM SIX FEET (6') CLEAR TRUNK UNLESS OTHERWISE NOTED ON PLANS OR PLANT LISTS.
- TREES MOVED DURING PERIODS OF HIGH TRANSPIRATION SHALL BE SPRAYED WITH AN ANTI-DESSICANT PRIOR TO MOVING. APPLY AND REMOVE ANTI-DESSICANTS AT THE MANUFACTURER'S RECOMMENDATIONS.
- TREES SHALL BE STAKED AND GUYED AS DETAILED AND SPECIFIED ONLY IF THE TREE CANNOT STAND ON ITS OWN AS DETERMINED BY THE PROJECT LANDSCAPE ARCHITECT. STAKE AND GUYED MATERIALS SHALL BE REMOVED BY THE LANDSCAPE SUBCONTRACTOR SIX (6) MONTHS AFTER FINAL ACCEPTANCE.
- ALL TREES ARE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER AT ANY TIME PRIOR TO FINAL ACCEPTANCE. REJECTED PLANTS SHALL BE REPLACED IMMEDIATELY AT NO ADDITIONAL COST.
- THE LANDSCAPE SUBCONTRACTOR SHALL FIELD STAKE ALL TREES PRIOR TO INSTALLATION. THE OWNER'S REPRESENTATIVE SHALL APPROVE ALL STAKED LOCATIONS PRIOR TO INSTALLATION. PLANTS INSTALLED PRIOR TO APPROVAL BY THE OWNER'S REPRESENTATIVE ARE SUBJECT TO REJECTION AND REPLACEMENT AT NO ADDITIONAL COST TO THE OWNER.
- PRIOR TO COMMENCEMENT OF INSTALLATION, THE LANDSCAPE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND SHALL AVOID DAMAGING UTILITIES DURING INSTALLATION. ANY UTILITIES DAMAGED DURING INSTALLATION SHALL BE REPAIRED BY THE LANDSCAPE SUBCONTRACTOR TO THE SATISFACTION OF THE APPROPRIATE UTILITY COMPANY AND THE ENGINEER. ALL REPAIRS SHALL BE AT NO COST TO THE OWNER.
- NO TREES SHALL BE PLANTED WITHIN 10' OF SITE UTILITY LINES. TREE LOCATIONS PROPOSED WITHIN 10' SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO EXCAVATING. FIELD ADJUSTMENT OF TREE LOCATIONS SHALL BE DETERMINED BY THE PROJECT LANDSCAPE ARCHITECT. PLANTS RELOCATED AND INSTALLED WITHOUT APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT WILL BE REMOVED, REPLACED, AND RELOCATED AT NO ADDITIONAL COST.
- THE LANDSCAPE CONTRACTOR SHALL UTILIZE ON-SITE TOPSOIL AS AVAILABLE FROM THE EARTHWORK SUBCONTRACTOR. ALL TOPSOIL SHALL BE APPROVED BY THE ENGINEER.
- NO TREES SHALL BE INSTALLED IN POOR DRAINAGE CONDITIONS. LANDSCAPE SUBCONTRACTOR IS RESPONSIBLE FOR TESTING SUSPECT TREE PITS PRIOR TO TREE INSTALLATION. REFER TO THE LANDSCAPE SPECIFICATIONS FOR TREE PIT TESTING PROCEDURES.
- ALL TREES SHALL BE PLACED WITH THE BEST FACE FORWARD, TOWARDS THE STREET WHENEVER POSSIBLE.
- ALL TREES SHOULD BE PRUNED AS NECESSARY PRIOR TO INSTALLATION.
- PRE-EMERGENT HERBICIDES, TREFLAN, PREEN, OR APPROVED EQUAL, SHALL BE APPLIED TO ALL TREE PLANTING BEDS PRIOR TO MULCHING. APPLY AT MANUFACTURERS RECOMMENDATIONS. HERBICIDES SHALL BE INCORPORATED INTO THE SOIL AT THE RECOMMENDATION OF THE MANUFACTURER.
- APPLY ORGANIC ROOT STIMULATOR, CONTINUING MYCORRHIZAE, TO ALL TREES PRIOR TO BACKFILLING. APPLY AT MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUBMIT SAMPLES OF ROOT STIMULATOR TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
- THE LANDSCAPE SUBCONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE PLANT INSTALLATIONS UNTIL ACCEPTED BY THE OWNER. MAINTENANCE SHALL INCLUDE RE-MULCHING, WATERING, APPLICATIONS OF HERBICIDES, FUNGICIDES, INSECTICIDES AND PESTICIDES AS NECESSARY. MAINTENANCE SHALL INCLUDE ALL TREES, SEEDED AREAS AND SOD.
- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE THAT ALL TREES SHALL BE IN A HEALTHY AND THRIVING CONDITION ACCORDING TO THE NATURAL GROWTH HABITS OF THE INDIVIDUAL SPECIES AT THE TIME OF THE PROJECT COMPLETION.



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OF ALTERATION.



PROJECT NO: 2023-023  
SCALE: N/A  
DRAWN BY: MT  
DESIGNED BY: MPC/MJC  
CHECKED BY: MJC  
DATE ISSUED: 06-27-2023

DETAILS

VILLAGE OF MALONE OVERLOOK  
7+9 EAST MAIN STREET  
VILLAGE OF MALONE, COUNTY OF FRANKLIN, STATE OF NEW YORK

LAST REVISED: N/A  
CONSTRUCTION  
DOCUMENTS

DRAWING NO.  
C502



# **VILLAGE OF MALONE OVERLOOK PROJECT**

7+9 EAST MAIN STREET  
VILLAGE OF MALONE  
FRANKLIN COUNTY, NEW YORK

**CONTRACT #1 – GENERAL CONSTRUCTION**

**TECHNICAL SPECIFICATIONS**

Job # 2023-023  
Date: 05-30-2023

# VILLAGE OF MALONE OVERLOOK PROJECT

**PREPARED FOR:**

VILLAGE OF MALONE  
343 WEST MAIN STREET  
MALONE, NY 12953  
CONTACT PERSON:  
MS. REBAHKA SCACCIA  
PH#: (518) 483-4570

7+9 EAST MAIN STREET  
VILLAGE OF MALONE  
FRANKLIN COUNTY, NEW YORK



**MATTHEW J. CERVINI, P.E.**  
MANAGING ENGINEER

The above Engineer states that to the best of his knowledge, information and belief, the plans and specifications are in accordance with the applicable requirements of New York State. It is a violation of New York State Law for any person, unless acting under the direction of a licensed professional engineer to alter this document in any way. If altered, such licensee shall affix his or her seal and the notation "altered by " followed by his or her signature, date, and a specific description of alteration

**TECHNICAL SPECIFICATIONS**

Job # 2023-023  
Date: 05-30-2023



18969 US Route 11  
Watertown, New York 13601  
Tel: (315) 788-3900  
E-mail: web@gymodpc.com

## **INDEX OF DOCUMENTS**

### **VILLAGE OF MALONE OVERLOOK PROJECT**

#### **PROJECT #: 2023-023**

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## **SECTION 01 1000 SUMMARY**

### **PART 1 GENERAL**

#### **1.01 PROJECT**

- A. Project Name: Village of Malone Overlook Project
- B. The site is located at 7+9 East Main Street in the Village of Malone, Franklin County, New York. Contractor shall provide all required transportation of materials and personnel to the site.
- C. The work of this project includes, but is not limited to, the furnishing of all labor, materials, appliances, tools, and equipment to demolish +/- 600 SF of concrete walkways, perform topsoil stripping and excavation within work limits, restore +/- 150 LF of existing fencing, install +/- 850 SF of new concrete sidewalk and porcelain paver walkways and patio areas, install new grass pavers, concrete curb, light poles, electrical conduits, tree plantings, park benches, stainless steel fencing, and other associated work.
- D. ENGINEER: Wherever the word ENGINEER appears it shall refer to GYMO Architecture, Engineering & Land Surveying, D.P.C.; 18969 US Route 11, Watertown, New York 13601; (315) 788-3900. The Engineer is Matthew J. Cervini, P.E.
- E. OWNER: Wherever the word OWNER appears it shall refer to the Village of Malone; contact person Ms. Rebahka Scaccia, Village Clerk (518) 483-4570

#### **1.02 OWNER OCCUPANCY**

- A. Owner intends to occupy the Project during and throughout construction and upon Substantial Completion.
- B. Cooperate with Owner to minimize conflict and facilitate Owner's operations.
- C. Schedule Work to accommodate Owner occupancy.

#### **1.03 CONTRACTOR USE OF SITE AND PREMISES**

- A. Construction Operations: Limited to areas as designated by the Owner.
- B. Arrange use of site and premises to allow:
  - 1. Owner occupancy.
  - 2. Work by Others.
  - 3. Work by Owner.
  - 4. Use of site and premises by the public and emergency personnel.
- C. Provide access to and from site as required by law and by Owner:
  - 1. Do not obstruct roadways, sidewalks, or other public ways without permit.
- D. Time Restrictions:
  - 1. Limit conduct of especially noisy exterior work to the hours of 8:00AM to 5:00PM.

#### **1.04 CONSTRUCTION SCHEDULE**

- A. The Work shall be scheduled to proceed in a logical, orderly manner after the Notice to Proceed has been issued.
  - 1. The Contractor shall submit a construction schedule, for approval by the Owner, prior to commencing site work. During the course of the Work, the Contractor shall advise the Owner on a weekly basis of any revisions to the approved schedule.

#### **1.05 EMERGENCY CALLS**

- A. The Contractor shall maintain telephone service twenty-four (24) hours a day, seven (7) days a week, to at least three (3) responsible persons who shall be in a position to dispatch personnel and machinery at any point during the Work in the event of an emergency.

#### **1.06 PRE-CONSTRUCTION MEETING**

- A. Prior to the start of construction by the successful Bidder, a general information meeting shall be held with the Owner, Engineer, Contractor and other interested parties in attendance. The meeting shall cover the general features of the project and the various requirements in the

Contract.

### **1.07 LAYOUT OF WORK**

- A. The Contractor shall layout the Work according to all plans, details and instructions of latest issuance:
  - 1. Maintain one complete set of up to date drawings, specifications, shop drawings, details and instructions on the job site.
- B. Work shall be laid out plumb, square and true, to exact and correct dimensions. Work incorrectly laid out shall be removed and properly built at no extra cost to the Owner.
- C. Work shall be laid out with regard to Work of all other trades so that all Work shall fit properly and be scheduled and installed in the correct sequence.
- D. The Contractor shall retain a licensed Land Surveyor in the State of New York for layout activities.

### **1.08 CORRELATION OF WORK**

- A. The Contractor and any Subcontractor requested by the Engineer shall be required to attend regularly scheduled job meetings and special job meetings when called by the Engineer. Decisions and schedules agreed upon at such meetings shall be binding upon all Contractors and Subcontractors present and absent.
- B. Decisions required from the Engineer shall be anticipated by the Contractor to provide ample time for inspection, investigation or detail drawings.
- C. It is very important that the Contractor be aware at all times of continuous use of the property in and around the work area covered by this Contract by emergency services personnel and the visiting public, and coordinate work schedules, especially erection of equipment, hoisting of materials, overhead labor, etc., to ensure public safety.

### **1.09 EQUIVALENT PRODUCTS**

- A. Wherever a material, article or piece of equipment is identified on the Drawings or in the Specifications by reference to the name, trade name, make or catalog number of any manufacturer or supplier, it is intended to establish a standard of quality and/or performance, as determined by the Engineer, and not to limit competition. Wherever in the Contract Documents one or more products are specified, the words "similar and equal to" shall be deemed inserted.
- B. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or "or equal" materials and equipment as defined in this section and the General Conditions, or those substitute or materials and equipment approved by the Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or "or equal" item. Request for Engineer's clarification of materials and equipment considered "or equal" prior to the Effective Date of the Agreement must be received by the Engineer at least seven (7) days prior to the date for receipt of Bids. No item of material or equipment will be considered by the Engineer as a substitute unless written request for approval has been submitted by Bidder and has been received by the Engineer at least seven (7) days prior to the date for receipt of Bids. Each request shall conform to the requirements of the General Conditions and this Section. The burden of proof of the merit of the proposed item is upon the Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If the Engineer approves any proposed substitute item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.
- C. When the Engineer approves a product proposed by the Contractor and such proposed product requires a revision or redesign of any part of the Work of this Contract or any other separate Contract, all excess costs occasioned by redesign, revisions, or extra work which is required by this or other Contracts shall be at the cost and expense of the Contractor proposing the equivalent.
- D. The Contractor shall have the burden of proving at his own cost and expense to the satisfaction of the Engineer that the proposed product is equal to the named product. The Engineer may

establish criteria for product approval. The Engineer shall determine in his absolute discretion whether a proposed product is to be approved.

- E. If the Contractor fails to comply with these requirements, or if the Engineer determines that the proposed product is not equal to that named, the Contractor shall supply the product named.
- F. All material and workmanship shall, in every respect, be in accordance with what, in the opinion of the Engineer, is in conformity with approved modern practice.
- G. In all cases, new materials shall be used unless this provision is waived by notice from the Owner or its Representative.

#### **1.10 REFERENCE STANDARDS**

- A. All documents and publications such as codes, standards and specifications which are cited in the project specifications are hereby made a part of the project specifications to the same extent as if printed and bound herein.
- B. Wherever reference is made to any such document, the Contractor shall comply with the requirements of the issue or edition including revisions, amendments and supplements thereto in effect on the date of the Notice to Bidders for the Project, except as modified by the project specification.

#### **1.11 TEMPORARY FACILITIES**

- A. A temporary office for the Engineer's Resident Project Representative is not required.
- B. Contractor shall provide a location for and install the Engineer's project sign. The project sign will be provided by the Engineer.

#### **1.12 TEMPORARY STORAGE FACILITIES**

- A. The Contractor shall make all arrangements for the storage and off-loading of materials. Suitable raised platforms shall be provided for materials which might be damaged from contact with the ground.
- B. Contractor will be responsible for repairing any damages as a result of storage.

#### **1.13 CONTRACTOR'S RESPONSIBILITY**

- A. The Contractor shall take all precautions to prevent his materials and/or equipment being stored at the site from being used for vandalism. Contractor shall be responsible for and pay for any damage to the property as a result of such vandalism.
- B. The Contractor shall take all precautions to protect the public and his own materials and/or equipment at all times.
- C. The Contractor shall store materials and equipment on the site in such a manner as to allow access to the site for Contractor's property and property owner's operations.
- D. The Contractor shall properly dispose of all materials removed by his operations off-site.

#### **1.14 PAYMENTS TO CONTRACTOR**

- A. Partial Payment Requests shall be submitted to the Engineer for processing.
- B. See General Conditions for payment requirements.

#### **1.15 PERMITS AND CODES**

- A. The Contractor shall give all notices and comply with all applicable leases, ordinances, codes, rules and regulations. The intent of this Contract is that the Contractor shall base his bid upon the Contract Drawings and Specifications, but that all Work installed shall comply with all applicable codes and regulations as amended by any waivers. Before installing Work, all contractors shall examine the Drawings and the Specifications, and being aware of applicable codes and regulations bearing on the Work, shall immediately report any discrepancy to the Engineer. Where modifications are necessary to the Drawings and/or Specifications to comply with an applicable code or regulation, the Contract shall be adjusted by Change Order to conform to the code or regulation.
- B. The Contractor shall include in his bid, security, bonds, fees, and payment for all permits and licenses necessary for the proper execution and completion of the Work. The Owner shall

provide and pay for the Building Permit.

- C. The construction shall not be started until the necessary permits have been obtained, a copy is at the job site, and proper notice and approval for construction has been obtained. All necessary materials, equipment, labor and traffic protection devices shall be on the job site before requesting permission to start the Work. The Contractor may also be required to post a bond or certified check and/or provide additional insurance as described herein or elsewhere in the Contract Documents.

#### **1.16 BARRIERS AND PROTECTION**

- A. Contractor shall provide, erect and maintain barricades, warning signs, flags and lights as may be necessary to protect the Work and safeguard the workmen and the general public, all such protection shall comply with the requirements of the proper authorities having jurisdiction.
- B. Any work which is to remain in place that is damaged by reason of Work done under this Contract is to be restored to its original condition as deemed acceptable by the Engineer.
- C. The Contractor shall protect his work from damage caused by vandalism and malicious mischief.
- D. See also Section 01 5000 - Temporary Facilities and Controls.

#### **1.17 CUTTING, PATCHING AND REMOVALS**

- A. The Contractor shall do all cutting, patching, removal and replacement required for the completion of this Contract, including changes in the Work necessary to comply with the intent of the Drawings and Specifications as determined by the Engineer.
- B. Any work which is damaged by reason of Work done under this Contract is to be restored to its original condition as deemed acceptable by the Engineer.
- C. Removal of Existing Materials:
  - 1. The Contractor shall remove all items indicated on the Drawings or as specified herein. Where items are required to be removed and reinstalled or replaced due to the new Work, they shall be replaced or reinstalled by the trade involved.

#### **1.18 CLEANING**

- A. Throughout the construction period, maintain site in a standard of cleanliness as described herein:
  - 1. Retain all stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
  - 2. Do not allow the accumulation of scrap, debris, waste material, and other items not required for the construction of this Work.
  - 3. At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
  - 4. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material from the job site.
  - 5. Maintain the site in a neat orderly condition at all times.

#### **PART 2 PRODUCTS - NOT USED**

#### **PART 3 EXECUTION - NOT USED**

**END OF SECTION**

## **SECTION 01 1525**

### **BID ITEM DESCRIPTIONS CONTRACT NO.1 – GENERAL CONSTRUCTION**

#### **PART 1- GENERAL**

- A. Description: Bid Item Prices are established as full compensation for providing all necessary labor, materials, equipment and expenses to complete the work included in the Bid Item Descriptions.
- B. The Contractor shall carefully acquaint him/herself with all work associated with each payment item and shall have no claim of unfamiliarity with the requirements of the various items.
- B. Related Sections:
  - 1. Bid Form
  - 2. Section 01 1000 - Summary
  - 3. General and Supplementary Conditions
- C. List of Bid Item Descriptions (attached)

#### Section 1 - Lump Sum Items

- 1. General Construction
- 2. Park Sign



## **BID ITEMS**

### **SECTION 1 - LUMP SUM ITEMS**

#### **1. DESCRIPTION:**

Under this Section, the Contractor shall furnish all materials, construct, and fully complete the work of the Lump Sum Items, in the quantities, and to the lines and grades shown or specified, encountered in the work, or ordered by the Engineer.

The principal items of work scheduled herein are included under this section. The work also includes all accessories, appurtenances or other work required for the completion of the Lump Sum Items, except those related to the work of these items, and specifically included under other Payment Item Sections of this Contract.

#### **2. PAYMENT:**

Payment for the work of Lump Sum Items will be made at the Lump Sum Prices stated in the Bid and appropriate to each item included under this Section.

#### **3. NO PAYMENT:**

No payment will be made under this Section for work performed by the Contractor to replace defective work or for work which is not shown or ordered or which is outside the limits shown or ordered.

## BID ITEM DESCRIPTION

### **GENERAL CONSTRUCTION - BID ITEM 1**

1. **DESCRIPTION:**

Under this Item, the Contractor shall furnish all labor, materials and equipment to perform all work indicated in the contract documents, with the exception of work included in other bid items. Work under this item includes, but is not limited to, the following.

2. **WORK UNDER THIS ITEM:**

- Mobilization and demobilization
- Permits and associated fees
- Site preparation and utility locations
- Maintain owner and public access to facilities
- Work Zone Traffic Control
- Shop Drawings and Submittals
- Install project sign provided by Engineer
- Pre-construction conference and periodic job meetings
- Install and maintain Erosion and Sediment Control Measures as indicated in the contract documents or otherwise necessary for duration of construction. Temporary Erosion and Sediment Control measures shall be removed from the site upon completion of construction.
- Excavate and dispose of all asphalt, concrete, topsoil, gravel, subbase, and other on-site materials as indicated in the contract documents.
- Provide, place, grade, and perform associated compaction and testing of gravel, subbase, topsoil, or other earthen materials.
- Provide and install porcelain pavers and associated base materials in walkways and overlook area as indicated in the contract documents.
- Provide and install grass pavers around edge of parking lot with associated base materials as indicated in the contract documents.
- Provide and install concrete parking stops as indicated in the contract documents.
- Provide and place flowable fill under settled sidewalk areas as indicated in the contract documents.
- Provide, place, consolidate, finish, and perform any associated testing of concrete sidewalks, thresholds, pads, foundations, curbs, and other concrete items.
- Provide and install stainless steel fencing and associated, posts, foundations, and other associated items as indicated in the contract documents.
- Remove, restore, and reinstall existing sections of fencing as indicated in the contract documents.
- Provide and install park benches and associated mounting hardware as indicated in the contract documents.
- Provide and install decorative overhead light fixtures, with associated poles, fixtures, foundations, and wiring, as indicated in the contract documents.
- Provide and install exterior sections of electrical conduit and wiring connecting existing street lighting circuitry to new site lighting circuitry as indicated in the contract documents.
- Provide and install tree plantings as indicated in the contract documents.
- Site restoration, including site cleanup and placement of grass seed as indicated in the contract documents.
- Construction (survey) stakeout, and As-Builts
- General Note Items.
- Perform all other work indicated in the contract documents not included in other bid items.

## BID ITEM DESCRIPTION

### **GENERAL CONSTRUCTION - BID ITEM 1 (CONTINUED)**

3. **WORK NOT INCLUDED UNDER THIS ITEM:**

- Park Sign
- Replacement of Defective work (This will be performed at contractor's expense)

4. **PAYMENT:**

Payment for this Item will be made on a pro-rated basis based on the percentage of work completed during each month.

## **BID ITEM DESCRIPTION**

### **PARK SIGN - BID ITEM 2**

1. **DESCRIPTION:**

Under this Item, the Contractor shall furnish all labor, materials and equipment to provide and install a new park sign. The appearance and character of the new park sign shall match the existing sign. The frame shall be aesthetically pleasing and compliment the appearance of the new sign. Work under this item includes, but is not limited to, the following.

2. **WORK UNDER THIS ITEM:**

- Provide all materials, labor, and equipment to install a new park sign, sign frame, and associated foundations.
- Provide submittals containing shop drawings of the sign, frame, and associated foundations for approval.
- Coordinate new sign design with Owner and Fabricator.

3. **WORK NOT INCLUDED UNDER THIS ITEM:**

- General Construction Work
- Replacement of Defective work (This will be performed at contractor's expense)

4. **PAYMENT:**

Contractor is to provide a \$5,000 allowance for this item. Payment for this item will be made on a pro-rated basis based on the percentage of allowance used during each month. The owner understands that and agrees that the final billing for an allowance may be more or less than the figure specified in this Contract, and that any adjustments will be made on the final billing for this job. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

## **SECTION 02 4100 DEMOLITION**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Protection of adjacent properties during demolition.
- B. Disconnecting, capping and removal of identified utilities.
- C. Selective demolition of built site elements.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 5000 - Temporary Facilities and Controls: Security, protective barriers, and waste removal.
- C. Section 01 5713 - Temporary Erosion and Sediment Control: Silt fences.
- D. Section 31 1000 - Site Clearing: Vegetation and existing debris removal.
- E. Section 31 2200 - Grading: Topsoil removal.
- F. Section 31 2323 - FILL AND BACKFILL: Fill material for filling holes, pits, and excavations generated as a result of removal operations.
- G. Section 32 9300 - Plants: Relocation of existing trees, shrubs, and other plants.

#### **1.03 REFERENCE STANDARDS**

- A. 29 CFR 1926 - Safety and Health Regulations for Construction Current Edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations 2022, with Errata (2021).

#### **1.04 REGULATORY REQUIREMENTS**

- A. Conform to applicable code for demolition of structures, safety of adjacent structures, dust control, runoff control, disposal, traffic, and pedestrian control and security.
- B. Obtain required permits from authorities.
- C. Notify affected utility companies before starting work and comply with their requirements.
- D. Do not close or obstruct roadways without permits.

#### **1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Site Plan: Showing:
  - 1. Vegetation to be protected.
  - 2. Areas for temporary construction and field offices.
  - 3. Areas for temporary and permanent placement of removed materials.
- C. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
  - 1. Indicate extent of demolition, removal sequence, bracing and shoring, and location and construction of barricades and fences.
  - 2. Identify demolition firm and submit qualifications.
  - 3. Include a summary of safety procedures.
- D. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

#### **1.06 PROJECT CONDITIONS**

- A. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

#### **1.07 QUALITY ASSURANCE**

- A. Demolition Firm Qualifications: Company specializing in the type of work required.

1. Minimum of 3 years of documented experience.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. Fill Material: As specified in Section 31 2323 - FILL AND BACKFILL.

## **PART 3 EXECUTION**

### **3.01 SCOPE**

- A. Remove paving and curbs as required to accomplish new work.
- B. Remove all other paving and curbs as indicated on drawings.
- C. Remove fences, gates, retaining walls, landscaping, or any other built site elements that are noted on the plans or needed to accomplish the work.
- D. Remove other items indicated, for salvage, relocation, and recycling.
- E. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as specified in Section 31 2200.
- F. Fill excavations, open pits, and holes in ground areas generated as result of removals, using specified fill; compact fill as required so that required rough grade elevations do not subside within one year after completion.

### **3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS**

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
  1. Obtain required permits.
  2. Comply with applicable requirements of NFPA 241.
  3. Use of explosives is not permitted.
  4. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
  5. Provide, erect, and maintain temporary barriers and security devices.
  6. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
  7. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
  8. Do not close or obstruct roadways or sidewalks without permit.
  9. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
  10. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Do not begin removal until built elements to be salvaged or relocated have been removed.
- D. Do not begin removal until vegetation to be relocated has been removed and specified measures have been taken to protect vegetation to remain.
- E. Protect existing structures and other elements that are not to be removed.
  1. Provide bracing and shoring.
  2. Prevent movement or settlement of adjacent structures.
  3. Stop work immediately if adjacent structures appear to be in danger.
- F. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- G. If hazardous materials are discovered during removal operations, stop work and notify Engineer and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.

- H. Perform demolition in a manner that maximizes salvage and recycling of materials.
  - 1. Dismantle existing construction and separate materials.
  - 2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.
- I. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

### **3.03 EXISTING UTILITIES**

- A. The Contractor shall be solely responsible for locating all underground utilities prior to the commencement of Work. Locations of existing utilities on the site plan are not warranted to show all existing utilities above or below ground. Existing utilities indicated on the site plan are shown only for the convenience of the Owner's Representatives. It shall be expressly understood that the Owner will not in any way be held responsible for conclusions or interpretations drawn therefrom by the Contractor. the Contractor shall therefore be held solely liable for any damage that occurs on or off-site in this respect.
- B. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- C. Protect existing utilities to remain from damage.
- D. Protect existing trees, groups of trees, and other vegetation designated by the Engineer or shown on the Drawings to remain in place against unnecessary cutting, breaking, or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line.
- E. Do not disrupt public utilities without permit from authority having jurisdiction.
- F. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- G. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- H. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- I. Remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- J. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone; identify and mark utilities to be subsequently reconnected, in same manner as other utilities to remain.

### **3.04 SELECTIVE DEMOLITION FOR ALTERATIONS**

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
  - 1. Verify that construction and utility arrangements are as indicated.
  - 2. Report discrepancies to Engineer before disturbing existing installation.
  - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Separate areas in which demolition is being conducted from other areas that are still occupied.
  - 1. Provide, erect, and maintain temporary dustproof partitions of construction specified in Section 01 5000 in locations indicated on drawings.
  - 2. Provide sound retardant partitions of construction indicated on drawings in locations indicated on drawings.
- C. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
- D. Remove existing work as indicated and as required to accomplish new work.

1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
  2. Remove items indicated on drawings.
- E. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.
1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
  2. Where existing active systems serve occupied facilities but are to be replaced with new services, maintain existing systems in service until new systems are complete and ready for service.
  3. See Section 01 1000 for other limitations on outages and required notifications.
  4. Verify that abandoned services serve only abandoned facilities before removal.
  5. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
- F. Protect existing work to remain.
1. Prevent movement of structure; provide shoring and bracing if necessary.
  2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  3. Repair adjacent construction and finishes damaged during removal work.
  4. Patch as specified for patching new work.

### **3.05 DEBRIS AND WASTE REMOVAL**

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

### **END OF SECTION**



**SECTION 03 3050  
SITE CONCRETE**

**PART 1 - GENERAL**

**1.01 SCOPE**

- A. This Section is subject to the applicable requirements of the Contract Documents.
- B. This work includes all Site Concrete required by the Contract, and, in general, includes the following items:
  - 1. Concrete Formwork
  - 2. Concrete Reinforcement
  - 3. Concrete Testing.
  - 4. Cast in place site concrete for concrete pavement, curbs, slabs, sidewalks, light poles, manholes, catch basins, thrust blocks, and concrete encasement of utilities as shown, indicated and specified.
  - 5. Concrete finishing, curing, and protection.
  - 6. Submittals.

**1.02 RELATED WORK SPECIFIED ELSEWHERE**

- A. Section 31 1500 - Site Restoration

**1.03 SUBMITTALS**

- A. Test reports of all tests specified are to be transmitted to Engineer, with copies to the Owner.
- B. Project Specific Concrete mix designs for each type of concrete that will be used including special mixes for concrete to be pumped.
- C. Certified sieve analysis of fine and each class of coarse and fine aggregate (performed within last 4 months) shall be submitted to the Engineer for review prior to use. All cost will be at the Contractor's expense.
- D. Product data for concrete admixtures.

**1.04 PRODUCT HANDLING**

- A. Store materials properly to prevent damage, deterioration and inclusion of foreign matter. Aggregate shall be stockpiled in a well-drained location. Separate each gradation and pile them to prevent segregation of sizes within each gradation.
- B. Packaged materials shall be delivered in original unopened containers and stored in a weatherproof enclosure.
- C. Damaged or deteriorated materials are not acceptable and shall be removed from site.

**1.05 JOB CONDITIONS**

- A. No concrete shall be placed when the temperature is below 40 degrees F except to complete a pour already begun, unless protection is provided as specified for cold weather protection.

**1.06 APPLICABLE CODES, STANDARDS AND SPECIFICATIONS**

- A. Work under this Section shall conform to following, except as modified herein.
  - 1. American Society for Testing and Materials (ASTM), Standard Specifications and Methods of Testing.
  - 2. Specifications for hot weather concreting, ACI 305.
  - 3. Specifications for cold weather concreting, ACI 306.

**1.07 PROJECT CONDITIONS**

- A. Protect any adjacent finish materials against splatter during concrete placement.

**PART 2 - PRODUCTS**

**2.01 CONCRETE REQUIREMENTS**

- A. Project Concrete Classes
  - 1. Class 2 - To be used for Thrust Blocks, Burried Items, and as indicated in the drawings

2. Class 3 - To be used for sidewalks, slabs, curbs, items exposed to weather, and as indicated in the drawings
3. Class 4 - To be used for concrete pavement and as indicated in the drawings. Class 4 concrete shall meet the requirements of NYSDOT Material specification 501 for Class C Concrete

B. Material and performance requirements for each class of concrete is provided below

Concrete Class	Required Compressive Strength (psi)	Required Slump Range (in)	Maximum Water/Cement Ratio	Required Air Entrainment (%)
2	3,000	4.0 Max	0.46	None Required 8.0 Max
3	4,000	3.0 - 4.0	0.44	6.0 - 9.0
4	4,000	1.0 - 3.0	0.44	5.0 - 8.0

1. Required specified strength ( $f'_c$ ) shall be achieved at 28 days, (seven (7) days if hi-early cement is used)
2. Air Entrainment shall be as determined by direct measurement or by test method ASTM C138

C. Required Temperature Range

1. The temperature of concrete when deposited shall not be less than 50 degrees F nor above 90 degrees F.

## 2.02 CONCRETE FORMWORK

- A. Formwork Design and Construction: Comply with guidelines of ACI 347R to provide formwork that will produce concrete complying with tolerances of ACI 117.
- B. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances, unless otherwise noted below or indicated in the drawings.
  1. Form Facing for Exposed Concrete Finish Concrete: Contractor's choice of materials that will provide smooth, stain-free final appearance.
  2. Earth Cuts: Do not use earth cuts as forms for vertical surfaces. Natural rock formations that maintain a stable vertical edge may be used as side forms.
  3. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings or reinforcement. Apply release agent in accordance with manufacturer's recommendations.
  4. Form Ties: Cone snap type that will leave no metal within 1-1/2" of concrete surface.
- C. Form Cleaning:
  1. Clean forms as erection proceeds, to remove foreign matter within forms.
  2. Clean formed cavities of debris prior to placing concrete.
- D. Form Rem
  1. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
  2. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
  3. Store removed forms to prevent damage to form materials or to fresh concrete. Discard damaged forms.
- E. Provide formed openings where required for items to be embedded in passing through concrete work.

## 2.03 CONCRETE REINFORCEMENT

- A. Provide reinforcement as indicated in the drawings.
- B. Reinforcing Steel: ASTM A615/A615M, grade 60 (60,000 psi)
  1. Finish: Unfinished, unless otherwise indicated.

- C. Reinforcement Accessories:
  - 1. Tie Wire: Annealed, minimum 16 gauge, 0.0508 inch
  - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
- D. Welding of reinforcement is not permitted.

#### **2.04 CONCRETE JOINTS**

- A. Construction and spacing of Control Joints (expansion and contraction) and Construction Joints shall be as indicated in the drawings.
- B. Joint filler shall be premolded, resilient non-extruding type, 1/2" thick unless shown otherwise, for the full depth of the concrete section, in compliance with ASTM D 994.

#### **2.05 CONCRETE CURING MATERIALS**

- A. Paper for concrete curing and protection shall comply with ASTM C 171.
- B. White pigmented membrane curing compound shall be as specified in NYSDOT Specification 711-05, such as Hydrotane White, Certi-Vex Enviro Cure 1000, or Sealtight 1200 White Pigmented.
- C. Curing compound, clear or translucent with fugitive dye, ASTM C 309, Type 1. The compound shall not stain or discolor the finished concrete surfaces or make the surface unsatisfactory for paint or adhesives. Kure-N-Seal of Sonneborn-Comtech, 3-way Sealer of Anti-Hydro, Masterseal of Master Builders, or approved equal.
- D. Surface hardener and dust-proofing compound shall be Lapidolith of Sonneborn, Armortop of A-H Products, Saniseal of Master Builders, or approved equal.

#### **2.06 READY MIX PLANT**

- A. Ready Mix Plant: Ready mix or transit mix concrete may be used at the Contractor's option, but it must conform to ASTM standards, current edition, modified as herein specified. Concrete supplier shall certify that all concrete delivered to the job is in compliance with design mix.
- B. Proportions shall be subject to check by the Engineer at all times. All concrete for the project shall be mixed, transported, handled and placed using clean equipment only.
- C. Ready-mixed concrete shall be completely discharged within 1 hour, or before the drum has revolved 300 revolutions, whichever comes first. The starting time shall be considered to be the time at which the mixing water is introduced to the mixer.
- D. In hot weather or under conditions contributing to quick stiffening of the concrete, prevent premature drying in accordance with ACI Standard 305.
- E. When a truck mixer is used for mixing of concrete, the mixer operation shall begin within 30 minutes after the cement is intermingled with the aggregate.

#### **2.07 CONCRETE COMPONENTS**

- A. Portland cement, approved standard brand, ASTM C 150, Type I, Air Entrained Cement or ASTM C595, Type IL(A). The specified cement shall conform to all tests.
  - 1. All cement for site mixing is to be delivered to the site in sacks bearing name and brand of the manufacturer.
  - 2. One brand and color of cement is to be used for all concrete work exposed in the structure.
- B. Air entraining admixture, ASTM C 260.
- C. Fine aggregate is to be clean, sharp, uncoated grains of natural sand, free from loam, clay, organic impurities, or frozen material, in compliance with ASTM C 33. After approval, no change is to be made in the source of supply without written approval of the Engineer. Grading shall be as follows:
  - 1. Passing 3/8" Sieve 100%
  - 2. Passing No. 4 Sieve 90 to 100%
  - 3. Passing No. 8 Sieve 75 to 100%

4. Passing No. 16 Sieve 50 to 85%
  5. Passing No. 30 Sieve 25 to 60%
  6. Passing No. 50 Sieve 10 to 30%
  7. Passing No. 100 Sieve 1 to 10%
  8. Passing No. 200 (Wet) 0 to 3%
- D. Coarse aggregate is to be hard, clean, crushed limestone, free from adherent coatings, friable pieces, organic impurities, and in compliance with NYSDOT Standard Specifications (or ASTM C33 equivalents) with sizes as designated below. After approval, no change in the source of supply will be allowed without written approval of the Engineer.
1. Class 3 Concrete
    - a. Material meeting the material and gradation requirements of NYSDOT Standard specifications 501-2.02 for CA 1 Coarse aggregate. ASTM C33 Size 7 is an acceptable equivalent to Type CA 1 gradation. Grading as follows
      - 1) Passing 1" sieve 100%
      - 2) Passing 1/2" sieve 90 to 100%
      - 3) Passing 1/4" sieve 0 to 15%
  2. Class 2 and 4 Concrete
    - a. Material meeting the material and gradation requirements of NYSDOT Standard specifications 501-2.02 for CA 2 Coarse aggregate. ASTM C33 Size 57 is an acceptable equivalent to Type CA 2 gradation. Grading as follows
      - 1) Passing 1 1/2" sieve 100%
      - 2) Passing 1" sieve 93 to 100%
      - 3) Passing 1/2" sieve 27 to 58%
      - 4) Passing 1/4" sieve 0 to 8%
- E. Water shall be potable, clean, free from oil, acids, vegetable matter, alkalis, salts or other injurious substances.

## **2.08 PROPORTIONS OF CONCRETE**

- A. Concrete shall be composed of standard Portland cement, fine aggregate, coarse aggregate, water and approved admixtures.
- B. The following restrictions on concrete proportions shall apply:
  1. The minimum amount of cement for 3000 psi is 5.5 bags or 517 pounds.
  2. The minimum amount of cement for 4000 psi and stronger concrete is 6.0 bags or 564 pounds.
- C. Except as specified above, the proportions of concrete ingredients shall be established as enumerated in ACI 318.

## **2.09 MIXING CONCRETE**

- A. Measurements of cement, fine and coarse aggregate, shall be determined by weight, on scales, accurate to 1% of the net load being weighed. Weighing equipment shall be arranged to permit making compensation for changes required due to moisture contained in aggregate.
  1. Water shall be measured by a device, accurate to 1% plus or minus, of the total amount of water required per batch.
  2. Water in the aggregate shall be included in the quantity specified and subtracted from the amount added to the mixture. Moisture determinations shall be made on representative samples at least once each day and when the appearance of the aggregate indicates a change.
  3. Volumetric measurement of aggregate is not permitted except for small amounts of concrete.
  4. In cold weather, water and aggregate shall be heated by approved means so that temperature of mixed concrete shall be 70 degrees F minimum upon leaving mixer. Heating of mixer drum will not be permitted.
  5. Cement at a temperature in excess of 140 degrees F shall not be used in mixing concrete.
- B. All concrete shall be machine mixed, conforming to ASTM C 94.

1. The Contractor is responsible for producing concrete having the specified slump for each pour. Concrete failing to conform to this requirement shall be rejected.
  2. Concrete showing any evidence of setting up in the mixer or rotating container shall be rejected.
  3. Water used for washing out the truck mixer after unloading must be discharged and is not permitted for use in wetting next batch.
- C. Rejected concrete may not be reworked and must be removed from the site.
- D. Site mixed concrete shall be mixed not less than one minute after all materials are in the drum by a batch mixer not smaller than one-third cubic yard capacity.
1. Rotation of the drum shall be between 190 and 210 peripheral feet per minute. Speeding up the rotation of the drum is not acceptable for a reduction in time.
  2. Raw materials are not permitted to enter drum until the preceding batch has been entirely discharged.

## **2.10 ADMIXTURES**

- A. All concrete which is exposed to the weather shall also be air entrained including sidewalks, slabs and curbs. Mix in proportions as recommended by the manufacturer, in conformance with ASTM C260.
1. Air entraining admixtures shall not be used in concrete having an integral waterproofing admixture.
- B. Admixtures for plasticizing and densifying, may be used provided the concrete has a compressive strength at seven and twenty-eight days not less than that specified and also provided it complies with water-cement ratio requirements. If admixtures are used they shall be included in the mix design.
1. The admixture shall conform to ASTM C 494. Plastiment of Sika Chemical Corp., Pozzoloth of Master Builders, or approved equal.
  2. Submit, for review, evidence that the admixture increases the durability of the concrete when subject to freezing, thawing, and corrosion, and that the admixture has been used in similar work for not less than five years.

## **PART 3 - EXECUTION**

### **3.01 INSPECTION AND TESTING**

- A. The forms and reinforcing shall be inspected by the Engineer prior to placing any concrete.
- B. Testing
1. Concrete Temperature, slump, and air entrainment test shall be performed for each class of concrete at the following intervals, or as ordered by the Engineer:
    - a. (1) set of tests from the first placement each day
    - b. (1) set of tests approximately every 50 CY thereafter for sidewalks, curbs, and other miscellaneous placements.
    - c. (1) set of tests approximately every 150 CY thereafter for Concrete Pavement.
  2. Concrete slump testing shall be in accordance with ASTM C 143.
  3. Air entrainment testing shall be performed in accordance with ASTM C 138.
  4. A pair (2 each) of concrete cylinders shall be made in accordance with ASTM C31 for placement of concrete. During cold weather concreting, an additional (third) cylinder shall be made and cured on job site under same conditions as concrete it represents. Concrete cylinders shall be made at the following intervals or as ordered by the Engineer:
    - a. (1) pair of cylinders from the first placement each day
    - b. (1) pair of cylinders approximately every 50 CY thereafter for sidewalks, curbs, and other miscellaneous placements.
    - c. (1) pair of cylinders approximately every 150 CY Thereafter for concrete pavement
  5. Representative samples of the concrete cylinders shall be assessed for 7-day compressive strength and 28-day compressive strength in accordance with ASTM C39.
  6. It will be the responsibility of the Contractor to hire a third party testing agency to perform the required testing.

### **3.02 PREPARATION**

- A. All equipment shall be thoroughly cleaned before each run. Discharge the wash water outside of the forms.
- B. Before placing any concrete, check the reinforcing, accessories, sleeves, and inserts for position. Forms shall be properly oiled and free of debris and water.
- C. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with non-shrink grout.

### **3.03 PLACING CONCRETE**

- A. Place concrete in accordance with ACI 304R.
- B. Coordinate with work from other section in forming and placing openings including dowels, openings, slots, or other embedded items.
- C. Convey, transport and place the concrete as rapidly as practical, without segregation or loss of ingredients and without unnecessary handling, to produce a monolithic structure free from pits, honeycombed areas and visible lines of juncture.
  - 1. The formwork is to be free of ice and snow.
  - 2. Avoid accumulating concrete on the reinforcing and forms above the level of fresh concrete.
  - 3. Place each section of concrete in a single, complete and continuous pour.
  - 4. Use chutes and trunks of sufficient number and variable lengths so that the concrete does not free fall over 4'-0". Keep the surface of the concrete practically level at all times.
  - 5. Vibrate concrete for slabs and sidewalks to a solid mass and screed to carefully leveled grounds using a straight edge. Place concrete in order to allow finishing in daylight.
  - 6. Spade and work course aggregate away from forms, work the concrete around reinforcing to avoid air pockets, voids and honeycomb sections.
  - 7. The use of a vibrator is recommended. Apply directly to the concrete. Excessive vibration causing segregation of the mix is prohibited. Flowing the concrete more than four feet with a vibrator is prohibited. Supplement vibration by hand spading in corners and angles of forms and along form surfaces.
- D. Adding Water:
  - 1. If concrete arrives on-site with a slump less than suitable for placement, water may be added to obtain initial slump provided that both the maximum water-cement ratio and the maximum permissible slump are not exceeded.
  - 2. No water may be added to the concrete mix once the placement of the concrete has been substantially started.

### **3.04 CURBING**

- A. GENERAL
  - 1. The Contractor shall furnish and install all new curbing work required on this project in accordance with this Section of the Specifications.
  - 2. Curbing shall, in general, be constructed in accordance with New York State Department of Transportation (NYS DOT) specifications published May 1, 2023, as amended to date. NYS DOT specifications are referred to for certain types of curbs and are intended to apply for material to be supplied and construction procedures except as modified herein. It shall be the Contractor's responsibility to perform all work within the prescribed temperature, moisture and weather limitations imposed by the NYS DOT specification. Unless modified in this section, all work shall also be performed within the prescribed seasonal limitations imposed by the NYS DOT specification.
  - 3. The Contractor shall construct curbs within the grades and limits shown of the drawings. All curbs shall be laid to a straight alignment parallel to the center line of the road or along the required radius or curvature shown on the drawings. Finished curbing shall present a neat, uniform and continuous line with no apparent dips, high spots or bulges, or variations in line or grade greater than 1/8 inch as measured by a 10-foot straight edge. All new concrete curbing shall have a minimum height of 20 inches and a minimum

thickness of 8-inches.

- a. When old curb is being replaced, the old curb shall be removed to the nearest construction joint. Replacement curb shall match as nearly as possible the existing curb in every dimension except that all cement concrete curbing shall have a minimum height of 18 inches and a minimum thickness of 6 inches. In all cases, the horizontal and vertical faces of the new curb shall be flush with the face of the existing curb.
4. All construction of curbing at crosswalks shall comply with the NYS DOT regulations, pursuant to Section 330 of the Highway Law entitled "Construction Curbing for Physically Handicapped Persons."
5. Excavation and backfill work shall be kept to the minimum necessary for proper curb installation. All curbing shall bear on subbases as specified herein or shown on the drawing which has been satisfactorily compacted in accordance with the section - Earthwork.
6. The Contractor shall protect the curb and keep it in alignment and first class condition until the completion of the contract. Any curb which is damaged at any time previous to final acceptance of the work shall be removed and replaced at the Contractor's expense.

#### B. CEMENT CONCRETE CURB

1. All forms shall be true to line and grade and held rigidly in position. They shall be either metal or of acceptable planed and matched lumber and of such construction that there will be no interference to inspection of grade and alignment. A smooth surface will be provided.
2. The concrete shall be compacted by means of an approved immersion type mechanical vibrator of a size and weight sufficient to thoroughly vibrate the entire concrete mass without damaging or misaligning the forms. The vibrator shall be introduced into the concrete at 1-foot intervals for a period not to exceed two seconds for each immersion and shall vibrate at not less than 5,000 impulses per minute.
3. Curb shall be cast in place in sections approximately 10-feet long and provision made at each joint for expansion of 1/8 to 1/4 inch. Expansion joints 1/2 inch in thickness shall be located opposite each pavement expansion joint or approximately every 20 feet and at all changes in alignment. Expansion joint material shall be premolded bituminous as specified under NYS DOT specifications, Item 705-07, cut to conform to the cross section of the curb and be set slightly indented, and covered with an epoxy joint sealant.
4. The finish shall be steel troweled. The finished surface shall be free of trowel marks, uniform in texture and appearance and within the previously stated tolerances. The top face edge of the curb shall be finished with an edging tool, having a 1-inch radius and the top back edge of the curb shall be finished with an edging tool having a 1/4 inch radius.
5. The forms shall be left in place until the concrete has set sufficiently so that, in the opinion of the Engineer, they can be removed without injury to the curb. Upon removal of the forms, the curb shall be immediately troweled or rubbed to a smooth and uniform surface, but no plastering will be permitted. For this work, competent and skillful finishers shall be employed.
  - a. Curing shall be at the Contractor's option. Either NYS DOT specification: Item 711-03 Coated Plastic Fiber Blankets for Curing; 711-02, Quilted Covers; 711-04, Polyethylene Curing Covers; or 711-05, White Pigmented Membrane Curing Compound shall be used in curing concrete curb. Concrete shall be kept covered, moist and protected from vehicles and from freezing for at least seven (7) days. A protective sealer shall be sprayed on the exposed concrete surface using an approved chlorinated rubber base sealer as manufactured by Euclid Chemical Company, Protex, Sonneborn or Republic Powdered Metals #125 clear acrylic coating or equal. The sealer to be applied in accordance with the manufacturer's recommendations, either clear or white colored, and may be combined with a membrane curing compound.

#### C. MACHINE FORMED CONCRETE CURB

1. The Contractor shall use the construction methods as specified in Section 609-3.03 of the NYS DOT Standard Specifications dated January 1, 2022.

**D. PRECAST CONCRETE CURBS**

1. The Contractor shall use the construction methods as specified in Section 609-3.06 of the NYS DOT Standard Specifications dated January 1, 2022.

**3.05 CONCRETE PAVEMENT**

**A. GENERAL**

1. The Contractor shall furnish and install all new concrete pavement required on this project in accordance with the drawings and this Section of the Specifications.
2. Refer to the drawings for concrete concrete pavement thickness, slope, and joint construction details.

**B. PLACEMENT**

1. Place concrete pavement in accordance with Section 3.03 of this Specification

**C. FINISHING**

1. Float all concrete pavement while the concrete is still green but hardened sufficiently to bear the finisher's weight using a metal disc power machine.
  - a. No floating will be permitted while the surface is wet, soft or sloppy.
  - b. Care shall be exercised and the operation of the machine controlled to prevent overworking the finish and drawing excess mortar and water to surface.
  - c. The finishing machine shall be used for compaction and elimination of any voids. Repeated operation over a given area other than to secure the necessary compaction is to be avoided.
  - d. For areas of slabs which cannot be mechanically floated, use a wood or cork hand float.
  - e. Finish float surfaces to true uniform plane. Test the surface with a straight edge to detect high and low spots which shall be eliminated.
2. After floating, steel trowel the concrete to a smooth hard surface.
  - a. Provide second and subsequent trowellings as required to bring the surface to a smooth, hard, and impervious surface free from marks and blemishes.
3. Immediately after finishing, Texture the concrete surface using either Longitudinal Tining or Artificial Turf Dragging, as specified in NYSDOT Standard Specification 502-3.10.

**D. CURING**

1. Apply white pigmented membrane curing compound, as specified in Section 2.05 of this Specification, within 5 minutes of texturing concrete pavement.
2. Apply curing compound per the manufacturers recommendations, such that the coated surfaces are completely white.
3. Concrete shall be protected from vehicles and freezing for at least (7) days. Concrete pavement should be allowed to achieve a minimum compressive strength of 3,000 psi before being opened to traffic.
4. Cold Weather curing should be performed in accordance with section 3.09C of this Specification

**3.06 FIELD QUALITY CONTROL**

- A. Should any of test cylinders show low results, cored samples will be required for retesting. All costs for removal, replacement, and testing of the faulty work shall be borne by the Contractor with no additional cost to the Owner. The testing procedure shall be as outlined in ACI 318.

**3.07 CONSTRUCTION AND CONTROL JOINTS**

- A. Locate construction and control joints as indicated on the Plans. The type, number and location of construction joints in each member, unit or section of the structure is subject to the review of the Engineer prior to placing the concrete.

**3.08 CONCRETE SLAB FINISHES**

- A. Float all sidewalks and slabs which require finishing while the concrete is still green but hardened sufficiently to bear the finisher's weight using a metal disc power machine.
  1. No floating will be permitted while the surface is wet, soft or sloppy.



2. Care shall be exercised and the operation of the machine controlled to prevent overworking the finish and drawing excess mortar and water to surface.
  3. The finishing machine shall be used for compaction and elimination of any voids. Repeated operation over a given area other than to secure the necessary compaction is to be avoided.
  4. For areas of slabs which cannot be mechanically floated, use a wood or cork hand float.
  5. Finish float surfaces to true uniform plane. Test the surface with a straight edge to detect high and low spots which shall be eliminated.
- B. After floating, steel trowel the concrete to a smooth hard surface.
1. Provide second and subsequent trowellings as required to bring the surface to a smooth, hard, and impervious surface free from marks and blemishes.
- C. Provide a broom finish to slabs and sidewalks.
1. Draw the broom across slab surface, slightly overlapping previous passes. Corrugations in concrete shall be uniform and not over 1/8" deep.
  2. Use a push broom or floor broom, at least 18" wide, with good quality fiber or rattan bristles at least 4" long. The broom handle shall be longer than 1/2 width of the slab.
  3. Brooming shall be completed before the initial set of the concrete to prevent tearing or undue roughening of the surface.
  4. Edges and tooled joints shall be finished after brooming to provide a "picture frame" finish.
  5. Apply a minimum of three coats of hardener and dust proofing compound specified to exposed concrete floors, applied as recommended by the manufacturer of compound used. The completed application shall be guaranteed to remain hard and dustproof for a period of three years after application.
- D. Finish all concrete floors to a true, smooth and level surface or pitched to drain as required. The surfaces shall be true to the designed datum plane within a tolerance of 1/2" in 10 ft. as determined by a 10 ft. straightedge placed anywhere on the slab in any direction. All variations below this tolerance shall be leveled with latex cement as specified, mixed and installed in strict accordance with manufacturer's directions.

### **3.09 PROTECTION AND CURING**

- A. Comply with requirements of ACI 308R where applicable.
- B. Protect the concrete from any injurious action of sun, rain, flowing water, frost, mechanical injury and premature drying.
- C. Cure all surfaces to prevent early loss of moisture in the mixture and to develop the full anticipated strength and durability of the concrete.
1. Unless otherwise specified, within 24 hours of concrete pours the horizontal surfaces of floors, slabs, platforms, etc. shall be completely covered with waterproof paper, with joints lapped and sealed. Apply in strict accordance with directions of the manufacturer of the waterproof paper used. The paper is to remain in place for seven (7) days minimum. Alternatively, slabs may be wet cured using soaker hoses or other similar means. Maintain the entire surface in a wet condition for a seven-day minimum period. Horizontal surfaces shall not be cured with a curing compound.
  2. Vertical surfaces shall be completely coated with the curing compound specified.
- D. Cold weather protection shall be provided by the Contractor for any concrete placed during freezing weather.
1. Provide all necessary equipment for heating and protecting the concrete during freezing and near freezing weather.
  2. No frozen materials or materials containing ice or frost will be used.
  3. The temperature of the concrete shall be maintained above 50 degrees F for not less than five days after placing. For slabs, maintain heat for seven days after placing.
  4. Keep the housing, covering and other protection in place for twenty-four hours after the heating is discontinued.
  5. Salt, chemicals, or other materials shall not be allowed to be mixed with the concrete to prevent freezing.

6. Methods of heating and protection shall conform with ACI 306.
  7. When concrete is placed in severe cold weather, the Engineer may require job stored test cylinders cured under identical conditions be tested before supporting forms and shores are removed, in accordance with ACI Standard 306.
- E. Hot weather protection which is provided by the Contractor for concrete placed during hot, dry weather shall be in accordance with ACI Standard 305.

### **3.10 CLEAN UP**

- A. Upon completion of work under this Section, remove all equipment, tools, excess materials, rubbish and debris from site.

**END OF SECTION**

**SECTION 31 0050  
DEWATERING AND DRAINAGE**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. The Contractor shall prevent surface water and subsurface or groundwater from flowing into excavations or earthwork areas which would cause flooding of the project site and surrounding area, or softening or loosening of the soil at excavation or earthwork subgrade.
- B. The Contractor shall provide adequate and satisfactory dewatering and drainage of excavations and furnish all materials and equipment and do all incidental work required in conjunction with the furnishing, installing, and maintaining of same to permit proper installation of the structures, pipe and appurtenances. The Contractor may choose any satisfactory method he wishes, subject to the approval of the Engineer, for handling groundwater or surface water encountered in the work, provided they perform the dewatering required, and shall assume all responsibility for the adequacy of the methods, materials, and equipment employed. The Contractor shall bear the full cost of providing the dewatering at all times of the year, throughout the construction period, and no additional payment shall be made for this work. The Contractor shall take all precautions necessary to prevent loosening or softening up of the subgrade. In this regard, the Contractor shall at all times be prepared to alter his construction method or sequence. Dewatering and control of water shall be conducted as necessary to prevent seepage, groundwater flow and infiltration and runoff from it in any way undermining or otherwise damaging adjacent structures and utilities.
- C. Pumping equipment and devices to properly remove and dispose of all water entering the trenches and excavation for structures shall be provided. The grade shall be maintained dry until the structures (pipe, manholes, vaults, etc.) to be built thereon are completed. All dewatering required by pumping and drainage shall be performed without damage to the excavation, pipe trench, pavements, pipes, electrical conduits, other utilities and any other work or property. Existing or new sanitary sewers shall not be used to dispose of drainage. The Contractor's method of dewatering shall maintain the bottom excavation dry at all times.

**1.02 SUBMITTAL**

- A. Submit to the Engineer a plan describing the method and equipment to be used to dewater and drain site excavation.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 GENERAL**

- A. Remove water from excavations to prevent softening of trench and structure subgrades and soil changes detrimental to the stability of subgrades, foundations, and excavations and keep them dry until the structures to be built thereon are completed.
- B. Do not allow water to accumulate in excavations. The Contractor shall, at all times during construction, provide ample means and devices with which to remove promptly and dispose properly of all water entering roadway, trench, and structure excavations and keep them dry until the structures to be built thereon are completed.
- C. Drainage shall be adequate. No pipe shall be laid in water. No masonry shall be laid in water, and no water shall be allowed to rise over any masonry for four days. In no event shall water be allowed to rise so as to set up unequal pressures in the structures until the concrete or mortar has set up at least 24 hours. The Contractor shall constantly guard against the possibility of flotation of pipe or structures after installation. He shall place adequate backfill promptly to prevent this occurrence, and his method of handling drainage and carrying on his operations shall always be adequate to prevent flotation.
- D. If the Contractor elects to use underdrains for handling the water in pipe trenches or around structure excavations, he shall furnish and install the pipe and screened gravel, graded from coarse to fine and shall furnish and install all sumps, pumping equipment, etc., to maintain the water level continuously at the required elevation.

- E. Perform grading in the vicinity of excavations so that ground surface is properly pitched to prevent water running into excavations.

**END OF SECTION**

## **SECTION 31 1000 SITE CLEARING**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Clearing and protection of vegetation.
- B. Removal of existing debris.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 5000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- C. Section 01 5713 - Temporary Erosion and Sediment Control.
- D. Section 01 7000 - Execution and Closeout Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products.
- E. Section 01 7419 - Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.
- F. Section 02 4100 - Demolition: Removal of built elements and utilities.
- G. Section 31 2200 - Grading: Topsoil removal.
- H. Section 31 2323 - FILL AND BACKFILL: Fill material for filling holes, pits, and excavations generated as a result of removal operations.
- I. Section 32 9300 - Plants: Relocation of existing trees, shrubs, and other plants.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. Fill Material: As specified in Section 31 2323 - Fill and Backfill

### **PART 3 EXECUTION**

#### **3.01 SITE CLEARING**

- A. Comply with other requirements specified in Section 01 7000.
- B. Minimize production of dust due to clearing operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.

#### **3.02 EXISTING UTILITIES AND BUILT ELEMENTS**

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Protect existing structures and other elements that are not to be removed.

#### **3.03 VEGETATION**

- A. Scope: Remove trees, shrubs, brush, and stumps in areas to be covered by building structure, paving, playing fields, lawns, and planting beds.
- B. Do not begin clearing until vegetation to be relocated has been removed.
- C. Install substantial, highly visible fences at least 3 feet high to prevent inadvertent damage to vegetation to remain.
- D. In areas where vegetation must be removed but no construction will occur other than pervious paving, remove vegetation with minimum disturbance of the subsoil.
- E. Vegetation Removed: Do not burn, bury, landfill, or leave on site, except as indicated.

- F. Restoration: If vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations, replace at no cost to Owner.

#### **3.04 DEBRIS**

- A. Remove debris, junk, and trash from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION**

## **SECTION 31 1050 SITE PREPARATION**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Clearing and protection of vegetation.
- B. Abandonment and removal of existing utilities and utility structures.

#### **1.02 SCOPE OF WORK**

- A. Provide all equipment and materials, and do all work necessary to maintain erosion and sediment control. The erosion and sediment control provisions specified herein are the minimum requirements for erosion control. The Contractor shall provide additional erosion and sediment control materials and methods as required to effect the erosion and siltation control principles specified herein.
- B. The work shall include, but not be limited to, the following: clearing, grubbing, cutting and disposing of vegetation, trees and debris from within the project area (including the stripping and stockpiling of topsoil).
- C. Furnish and set all lines and grades required for construction operations and be solely responsible for the accuracy of lines and grades features of the work.
- D. Site clearing, grubbing and erosion control methods shall comply with DEC Regulations and requirements outlined in the Storm Water Pollution Prevention Plan.
- E. Provide Erosion and Sedimentation Control features including: off-site sediment tracking control, slope protection, placement of straw bales and siltation fences, temporary drainage swales, filtration and check dams, inlet baskets, and temporary seeding as necessary.
- F. Contact Underground Utilities Call Center of New York at 1-800-962-7962, a minimum of 48 hours prior to performing any work on-site to arrange for utility location services.
- G. Potheole to verify location of existing various underground facilities at sufficient locations to assure that no conflict with the proposed work exists and sufficient clearance is available to avoid damage to existing facilities.
- H. Perform potholing at least 10 working days in advance of performing any excavation or underground work.
- I. Upon discovery of conflicts or problems with existing facilities, notify Engineer by phone or fax within 24 hours. Follow telephone or fax notification with letter and diagrams indicating conflict or problem and sufficient measurements and details to evaluate problem.

#### **1.03 RELATED SECTIONS**

- A. Section 01 1000 - Summary: Limitations on Contractor's use of site and premises.
- B. Section 01 5000 - Temporary Facilities and Controls: Site fences, security, protective barriers, and waste removal.
- C. Section 01 7000 - Execution Requirements: Project conditions; protection of bench marks, survey control points, and existing construction to remain; reinstallation of removed products.
- D. Section 02 4100 - Demolition
- E. Section 31 2200 - Grading: Topsoil removal.
- F. Section 31 0050 - Dewatering and Drainage

#### **1.04 REFERENCES**

- A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.
- B. New York Guidelines for Urban Erosion and Sediment Control. Guidelines may be obtained at: USDA-Soil Conservation Service, James M. Hanley Federal Building, 100 S. Clinton Street, Room 771, Syracuse, NY 13260.

### **1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped and active utilities and subsurface construction.

### **1.06 PROJECT CONDITIONS**

- A. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- B. Protect existing trees, groups of trees, and other vegetation designated by the Engineer or shown on the drawings to remain in place against unnecessary cutting, breaking, or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS**

- A. As Specified in Section 01 5713 - Temporary Erosion and Sediment Control

## **PART 3 EXECUTION**

### **3.01 EXISTING UTILITIES**

- A. The Contractor shall be solely responsible for locating all underground utilities prior to the commencement of work. Locations of existing utilities on the site plan are not warranted to show all existing utilities under or above ground. Existing utilities indicated on the site plan are shown only for the convenience of the Owner's representatives. It shall be expressly understood that the Owner will not in any way be held responsible for conclusions or interpretations drawn therefrom by the Contractor. The Contractor shall therefore be held solely liable for any damage that occurs on or off site in this respect.
- B. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- C. Protect existing utilities to remain from damage.
- D. Do not disrupt public utilities without permit from authority having jurisdiction.
- E. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- F. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- G. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary. Remove exposed piping, valves, meters, equipment supports, and foundations of disconnected and abandoned utilities.
- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone, identify and mark utilities to be subsequently reconnected, in same manner as other utilities to remain.

### **3.02 VEGETATION**

- A. Install substantial, highly visible fences at least 3 feet high to prevent inadvertent damage to vegetation to remain:
  - 1. At vegetation removal limits.
- B. In areas where vegetation must be removed but no construction will occur other than pervious paving, remove vegetation with minimum disturbance of the subsoil.
- C. Vegetation Removed: Do not burn, bury, landfill, or leave on site, except as indicated.
  - 1. Chip, grind, crush, or shred vegetation for mulching, composing, or other purposes; preference should be given to on-site users.



2. Trees: Sell if marketable; if not, treat as specified for other vegetation removed; remove stumps and roots to depth of 18 inches.
  3. Sod: Re-use on site if possible; otherwise sell if marketable, and if not, treat as specified for other vegetation removed.
- D. Restoration: If vegetation outside removal limits or within specified protective fences is damaged or destroyed due to subsequent construction operations, replace at no cost to the Owner.
  - E. Protection of Existing Trees and Vegetation: Protect existing trees, groups of trees, and other vegetation designated by the Engineer or shown on the drawings to remain in place against unnecessary cutting, breaking, or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line.

### **3.03 DEBRIS**

- A. Remove debris, junk, and trash from site.

### **3.04 WASTE REMOVAL**

- A. Remove from site all materials not to be reused on site; do not burn or bury.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

**END OF SECTION**

## **SECTION 31 1500 SITE RESTORATION**

### **PART 1- GENERAL**

#### **1.01 SECTION INCLUDES**

- A. DESCRIPTION: Furnish all labor, materials, and equipment necessary for the completion of all site restoration as shown on the Drawings and/or damaged or destroyed during the performance of work under this contract. This includes but is not limited to all surfaces, i.e., trees, lawns and culverts.
- B. The quality of materials and the performance of work used in the restoration shall produce a surface or feature equal to the condition before the work began.

#### **1.02 RELATED WORK IN OTHER SECTIONS**

- A. Site Preparation - Section 31 1050
- B. Grading - Section 31 2200
- C. Excavation - Section 31 2316
- D. Trenching for Site Utilities - Section 31 2316.13
- E. Fill and Backfill - Section 31 2323

### **PART 2- PRODUCTS**

#### **2.01 MATERIALS**

- A. Lawn fertilizer: Commercial, containing by weight: 10% Nitrogen, 20% Phosphorus, 10% Potash.
- B. Lawn seed: As specified in Section 32 9219 - Seeding.
- C. Mulch: Stalks of oats, wheat, rye or other approved crops free from seed or noxious weeds.
- D. Topsoil - as specified in Section 31 2323 - Fill and Backfill.
- E. Pavement - As specified by the local community. In the absence of local community specifications, pavement used in restoration shall meet the requirements of the NYSDOT Standard Specifications, May 1, 2023 edition.
- F. Concrete: As Specified in Section 03 3050 - Site Concrete
- G. Crushed Stone: As specified - Section 31 2323 - Fill and Backfill.

### **PART 3- EXECUTION**

#### **3.01 LAWNS**

- A. Scope: make all disturbed areas new lawn unless otherwise noted on Drawings.
- B. Season of year for seeding subject to approval by Engineer. Do not seed when high wind, drought, excessive moisture, ice, or other conditions are such that specified results are not likely to be obtained.
- C. Fine Grade:
  - 1. Disk or harrow 3" depth where topsoil has been spread and 6" depth where no grade change occurs.
  - 2. Remove all stones 1" diameter and larger, roots, rubbish, and all other foreign matter.
  - 3. Grade to exact well draining grades indicated.
- D. Fertilize: Evenly distribute at 25 lbs. per 1,000 square feet. Work lightly into top 3" of soil.
- E. Seed:
  - 1. Rake immediately before seeding until surface smooth, friable, and of uniform fine texture. Roll. Rake out undulations shown by roller.
  - 2. Uniformly spread seed per Section 32 9219 - Seeding.
- F. Mulch all seeded areas immediately after seeding. Hand or machine spread to form a continuous blanket of 1" uniform thickness, loose measurement. Anchorage to hold mulch in

place may be employed at Contractor's option, subject to approval by Engineer.

- G. Protect all seeded areas, at Contractor's expense, with snow fences, wire farm fences, or similar structures. Remove upon final acceptance.
- H. Maintain Lawn:
  - 1. Begin immediately upon completion of seeding and mulching and continue for a minimum of thirty days or longer as required to establish uniform stand of specified grasses and until final acceptance.
  - 2. Water immediately after mulching to saturate the soil to 1/2" depth. Thereafter, water all seeded areas to 1" depth soil saturation no less than 2 times per week, and more often during periods of drought or high winds, until final acceptance.
  - 3. Maintain mulch daily, or more often as required. Contain mulch on site and clean up any areas where mulch is blown by wind.
  - 4. Repair all washouts and gullies. Re-rake, reseed and re-mulch as necessary.
  - 5. Mow all lawn areas to 2" height until acceptance. Grass shall not exceed 3" in height. A minimum of three mowings is required.
- I. Inspection and Final Acceptance of Lawns:
  - 1. Contractor shall request inspection by Engineer after establishment of uniformly germinated lawn and completion of maintenance.

### **3.02 PAVEMENT REPLACEMENT**

- A. The temporary and final repaving of all street, driveways and similar surfaces where pavement has been removed, disturbed, settled or damaged by or as a result of performance of the Contract shall be repaired and replaced by the Contractor, by a new and similar pavement.
  - 1. The top surface shall conform with the grade of existing adjacent pavement and the entire replacement shall meet the current specifications of the local community for the particular types of pavement.
  - 2. Where the local community has no specification for the type of pavement, the work shall be done in conformity with the State Department of Transportation Standard which conforms the closest to the type of surfacing being replaced, as determined by the Engineer.

### **3.03 CONCRETE WALKS, CURBS AND GUTTER REPLACEMENT**

- A. Concrete walks, curbs and gutters removed or damaged in connection with or as a result of the construction operations shall be replaced with new construction.
  - 1. The minimum replacement will be a flag or block of sidewalk and ten feet of curb or gutter.
- B. Walks, curbs and gutters shall be constructed of Class 3 air-entrained concrete, on a 6-inch base of compacted crushed stone. Class 3 concrete shall be used in sidewalks, depressed curbs or gutters where driveways are located.

### **3.04 STONE OR GRAVEL PAVEMENT**

- A. All pavement and other areas surfaced with stone or gravel shall be replaced with material to match the existing surface unless otherwise specified.
  - 1. The depth of the stone or gravel shall be at least equal to the existing.
  - 2. After compaction the surface shall conform to the slope and grade of the area being replaced.

### **3.05 OTHER TYPES OF RESTORATION**

- A. Trees, shrubs and landscape items damaged or destroyed as a result of the construction operations shall be replaced in like species and size.
  - 1. All planting and care thereof shall meet the standards of the American Association of Nurserymen.
- B. Water courses shall be reshaped to the original grade and cross-section and all debris removed. Where required to prevent erosion, the bottom and sides of the watercourse shall be protected.

- C. Culverts destroyed or removed as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location and grade. When there is minor damage to a culvert and with the consent of the Engineer, a repair may be undertaken, if satisfactory results can be obtained.

### **3.06 MAINTENANCE**

- A. The finished products of restoration shall be maintained in an acceptable condition for and during a period of one year following the date of Substantial Completion or other such date as set forth elsewhere in the Contract Documents.

**END OF SECTION**

## **SECTION 31 2200 GRADING**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Removal and storage of topsoil.
- B. Rough grading the site for site structures and site restoration following sewer line installation.
- C. Finish grading for planting.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 31 1000 - Site Clearing.
- B. Section 31 2316 - Excavation.
- C. Section 31 2316.13 - TRENCHING FOR SITE UTILITIES: Trenching and backfilling for utilities.
- D. Section 31 2316.26 - ROCK REMOVAL.
- E. Section 31 2323 - Fill and Backfill: Filling and compaction.

#### **1.03 REFERENCE STANDARDS**

- A. American Society for Testing and Materials (ASTM)
  - 1. D698: Moisture-Density Relations of Soil and Soil Aggregate Mixtures Using 5.5-lb. (2.5kg) Rammer and 12" (305-mm) Drop.
- B. New York State Department of Transportation, "Standard Specifications for Construction and Materials", May 1, 2023 edition, and the latest amendments, hereinafter referred to as the Standard Specifications, form a part of these Specifications to the extent of the references thereof.
- C. New York State Department of Labor, "Occupational Safety and Health Administration Regulations," latest edition.
- D. Section 31 2316.26 - Rock Removal.
- E. Section 32 9219 - Seeding: Finish ground cover.

#### **1.04 SUBMITTALS**

- A. Project Record Documents: Accurately record actual locations of utilities remaining by horizontal dimensions, elevations or inverts, and slope gradients.

#### **1.05 QUALITY ASSURANCE**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and are completely familiar with the specified requirements and methods needed for proper performance of the work in this section.
- B. Use equipment in size, capacity, and number to accomplish the work of this Section in a timely manner.
- C. In addition to complying with requirements of governmental agencies having jurisdiction, comply with the directions of the Engineer.
- D. The Contractor shall be responsible for notifying Engineer forty-eight (48) hours in advance of construction so that periodic inspections can be scheduled as needed.

#### **1.06 PROJECT CONDITIONS**

- A. Protect above- and below-grade utilities that remain.
- B. Protect bench marks, survey control points, paving, and curbs from grading equipment and vehicular traffic.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. Fill Materials: See Section 31 2323.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that survey bench mark and intended elevations for the Work are as indicated.
- B. Verify the absence of standing or ponding water.
- C. Site Information:
  - 1. Any data on indicated subsurface conditions are not intended as representatives or warranties of the continuity of such conditions. It is expressly understood that the owner will not be responsible for interpretations or conclusions drawn therefrom by the Contractor.
  - 2. Additional test borings and other exploratory operations may be made by the Contractor at no costs to the Owner.

### **3.02 PREPARATION**

- A. Identify required lines, levels, contours, and datum.
- B. Stake and flag locations of known utilities.
- C. Locate, identify, and protect from damage above- and below-grade utilities to remain.
- D. Existing Utilities:
  - 1. Rules and regulations governing respective utilities shall be observed in executing all work in this section. Active utilities shall be adequately protected from damage and removed or relocated only as indicated or as specified. Inactive or abandoned utilities encountered in excavation and grading shall be removed, plugged or capped. Electrical and piping utilities shall be uncovered by hand tools until it is certain that they do not present a safety hazard. As-built Drawings shall reflect the location of such utilities. All damage to utilities shall be restored by the Contractor at no cost to the Owner. If any secondary damage to the public or private property shall occur as a result of damage, the Contractor must restore the damaged property to its undamaged condition at no cost to the Owner.
  - 2. Locate existing underground utilities in the areas of work before starting earthwork operations. If utilities are to remain in place, provide adequate means of protection during earthwork operations.
  - 3. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult the Engineer or utility owner immediately for directions as to procedure. Cooperate with the Engineer, and public and private utility companies in keeping their respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner.
  - 4. The Contractor shall dig test pits prior to the construction to determine actual locations of specific utilities required to be relocated.

### **3.03 MATERIAL STORAGE**

- A. Stockpile excavated materials classified as satisfactory soil material where directed until required for backfill or placement. Place, grade, and shape stockpiles for proper drainage.
- B. Dispose of excess unsatisfactory soil materials, trash and debris, as specified.
- C. Notify utility company to remove and relocate utilities.
- D. Provide temporary means and methods to remove all standing or ponding water from areas prior to grading.
- E. Protect site features to remain, including but not limited to bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs, from damage by grading equipment and vehicular traffic.
- F. Protect trees to remain by providing substantial fencing around entire tree at the outer tips of its branches; no grading is to be performed inside this line.
- G. Protect plants, lawns, rock outcroppings, and other features to remain as a portion of final landscaping.

### **3.04 ROUGH GRADING**

- A. Remove topsoil from entire site, without mixing with foreign materials.
- B. Do not remove topsoil when wet.
- C. Remove subsoil from areas to be further excavated, re-landscaped, or re-graded.
- D. Do not remove wet subsoil, unless it is subsequently processed to obtain optimum moisture content.
- E. When excavating through roots, perform work by hand and cut roots with sharp axe.
- F. See Section 31 2323 for filling procedures.
- G. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.
- H. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack surface water control.

### **3.05 SOIL REMOVAL**

- A. Stockpile excavated topsoil on site.
- B. Stockpile excavated subsoil on site.
- C. Material in its undisturbed natural condition at or below the grades indicated on the drawings which in the opinion of the Engineer is deemed to be unsuitable material shall be removed to such depth as directed by the Engineer and shall be replaced with crushed stone or gravel base course material.

### **3.06 FINISH GRADING**

- A. Before Finish Grading:
  - 1. Verify building and trench backfilling have been inspected.
  - 2. Verify subgrade has been contoured and compacted.
- B. Remove debris, roots, branches, stones, in excess of 1/2 inch in size. Remove soil contaminated with petroleum products.
- C. Where topsoil is to be placed, scarify surface to depth of 3 inches.
- D. In areas where vehicles or equipment have compacted soil, scarify surface to depth of 3 inches.
- E. Place topsoil in areas where sodding and planting are indicated.
- F. Place topsoil where required to level finish grade.
- G. Place topsoil to the compacted thickness specified in the plans. In the absence of specification in the plans, topsoil shall be placed in the following compacted thicknesses:
  - 1. Areas to be Seeded with Grass: 6 inches.
  - 2. Shrub Beds: 18 inches.
- H. Place topsoil during dry weather.
- I. Remove roots, weeds, rocks, and foreign material while spreading.
- J. Near plants spread topsoil manually to prevent damage.
- K. Fine grade topsoil to eliminate uneven areas and low spots. Maintain profiles and contour of subgrade.
- L. Lightly compact placed topsoil.
- M. Maintain stability of topsoil during inclement weather. Replace topsoil in areas where surface water has eroded thickness below specifications.

### **3.07 TOLERANCES**

- A. Top Surface of Subgrade: Plus or minus 1/10 foot from required elevation.
- B. Top Surface of Finish Grade: Plus or minus 1/2 inch.

### **3.08 REPAIR AND RESTORATION**

- A. Existing Facilities, Utilities, and Site Features to Remain: If damaged due to this work, repair or replace to original condition.
- B. Trees to Remain: If damaged due to this work, trim broken branches and repair bark wounds; if root damage has occurred, obtain instructions from Engineer as to remedy.
- C. Other Existing Vegetation to Remain: If damaged due to this work, replace with vegetation of equivalent species and size.

### **3.09 CLEANING**

- A. Remove unused stockpiled topsoil and subsoil. Grade stockpile area to prevent standing water.
- B. Leave site clean and raked, ready to receive landscaping.

**END OF SECTION**



## **SECTION 31 2316 EXCAVATION**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Excavating for roads/parking, slabs-on-grade and utilities within the building.
- B. Trenching for utilities outside the building to utility main connections.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 01 7000 - Execution and Closeout Requirements: General requirements for dewatering of excavations and water control.
- B. Section 02 4100 - Demolition: Shoring and underpinning.
- C. Section 31 2200 - Grading: Grading.
- D. Section 31 2316.26 - ROCK REMOVAL: Removal of rock during excavating.
- E. Section 31 2323 - Fill and Backfill: Fill materials, filling, and compacting.

#### **1.03 REFERENCE STANDARDS**

- A. American Society for Testing and Materials (ASTM) D698: Moisture-Density Relations of Soil and Soil Aggregate Mixtures Using 5.5-lb. Rammer and 12-in. drop.
- B. New York State Department of Transportation, "Standard Specifications for Construction and Materials", May 1, 2023 edition, and the latest amendments, herein after referred to as the "Standard Specifications", form a part of these Specifications to the extent of the references thereof.
- C. New York State Department of Labor, "Occupational Safety and Health Administration Regulations", latest edition.

#### **1.04 QUALITY ASSURANCE**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and are completely familiar with the specified requirements and methods needed for proper performance of work in this Section.
- B. Use equipment in size, capacity, and number to accomplish the work of this Section in a timely manner.
- C. In addition to complying with requirements of governmental agencies having jurisdiction, comply with the directions of the Engineer.
- D. The Contractor shall be responsible for notifying the Engineer forty-eight (48) hours in advance of construction so that periodic inspections can be scheduled as needed.

#### **1.05 PROJECT CONDITIONS**

- A. Verify that survey bench mark and intended elevations for the Work are as indicated.
- B. Protect plants, lawns, rock outcroppings, and other features to remain.
- C. Protect bench marks, survey control points, paving, and curbs from excavating equipment and vehicular traffic.

### **PART 2 EXECUTION**

#### **2.01 EXAMINATION**

- A. Verify that survey bench mark and intended elevations for the work are as indicated.

#### **2.02 EXISTING CONDITIONS**

- A. Site Information:
  - 1. Any data on indicated subsurface conditions are not intended as representations or warranties of the continuity of such conditions. It is expressly understood that the Owner will not be responsible for interpretations or conclusions drawn therefrom by the Contractor.

2. Additional test borings and other exploratory operations may be made by the Contractor at no costs to the Owner.
- B. Existing Utilities:
1. Rules and regulations governing respective utilities shall be observed in executing all work in this Section. Active utilities shall be adequately protected from damage and removed or relocated only as indicated or as specified. Inactive or abandoned utilities encountered in excavation and grading shall be removed, plugged or capped. Electrical and piping utilities shall be uncovered by hand tools until it is certain that they do not present a safety hazard. As-built Drawings shall reflect the location of such utilities. All damage to utilities shall be restored by the Contractor at no cost to the Owner. If any secondary damage to the public or private property shall occur as a result of damage, the Contractor must restore the damaged property to its undamaged condition at no cost to the Owner.
  2. Locate existing underground utilities in the areas of Work before starting excavation operations. If utilities are to remain in place, provide adequate means of protection during excavation operations.
  3. Should uncharted or incorrectly charted piping or other utilities be encountered during the excavation, consult the Engineer or utility owner immediately for directions as to proceed. Cooperate with the Engineer, and public and private utility companies in keeping their respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner.
  4. The Contractor shall dig test pits prior to the construction to determine actual locations of specific utilities required to be relocated.

### **2.03 PREPARATION**

- A. Identify required lines, levels, contours, and datum locations.
- B. See Section 31 2200 for additional requirements.
- C. Locate, identify, and protect utilities that remain and protect from damage.
- D. Notify utility company to remove and relocate utilities.
- E. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- F. Protect plants, lawns, rock outcroppings, and other features to remain.

### **2.04 EXCAVATING**

- A. GENERAL CRITERIA
1. Material in its undisturbed natural condition at or below the grades indicated on the drawings which in the opinion of the Engineer is deemed to be unsuitable material shall be removed to such depth as directed by the Engineer and shall be replaced with crushed stone or gravel base course material.
  2. Excavation consists of the removal and disposal of materials encountered when establishing the required grade elevations.
    - a. Excavate all earth and all other materials encountered to the depths, forms, and sizes as shown on the drawings and as hereinafter specified. If any unsuitable material remains below these elevations proceed as specified below.
    - b. Unsuitable Material:
      - 1) Unsuitable material below specified subgrades under trenches, etc., shall be removed until suitable soil material, as previously defined, is encountered. Crushed Stone or gravel base course material as required, shall be placed and compacted as specified and/or as directed by the Engineer to bring the excavation to specified subgrades.
      - 2) Ledge shall be removed to 6" below subgrade or to the depth indicated on the drawings if different.
- B. EXCAVATION CLASSIFICATION
1. Earth excavation consists of the removal and disposal of pavements and other obstructions visible on the ground surface, underground structures, utilities indicated to be

- demolished and removed, material of any classification indicated in data on subsurface conditions, and all other materials encountered that are not classified as rock excavation or unauthorized excavation.
2. Rock and boulder excavation consists of the removal and disposal of materials encountered that cannot be excavated without continuous and systematic drilling and blasting, or continuous use of a ripper or other special equipment, except such materials that are classified as earth excavation.
    - a. Materials classified as rock and boulder are 2 cu. yds. or more in volume, solid rock, and rock-hard aggregate deposits that cannot be broken or moved with a 2 cubic yard backhoe.
    - b. Old foundation walls, concrete slabs, equipment footings and other manmade obstructions are not to be considered as rock or boulder.
  3. Unauthorized excavation consists of removal of materials beyond indicated depth or elevations without the specific direction of the Engineer. Replace unauthorized excavation by backfilling and compacting as specified for authorized excavations of the same classification. No additional compensation will be made to the Contractor for backfill material used to replace the material removed by the unauthorized excavation.
  4. Excavation Below Grade:
    - a. If the Contractor does not dewater properly or otherwise neglects to conduct the excavation work properly so that the surface of the subgrade is in proper condition when he is ready for construction, the Contractor shall remove the unsuitable material and replace it with crushed stone at his own expense so that the condition of the subgrade meets with the specified requirements before any work is placed thereon.
    - b. In areas, where the material, in its undisturbed natural condition, at the grade of the excavation as indicated on the Drawings is unsuitable for structure and trench bottom; or pavement subgrade; it shall be removed to such depth and width as he may direct and be replaced with crushed stone or gravel as directed by the Engineer.
- C. Underpin adjacent structures that could be damaged by excavating work.
  - D. Excavate to accommodate new structures and construction operations.
  - E. Notify Engineer of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
  - F. Slope banks of excavations deeper than 4 feet to angle of repose or less until shored.
  - G. Cut utility trenches wide enough to allow inspection of installed utilities.
  - H. Hand trim excavations. Remove loose matter.
  - I. Remove lumped subsoil, boulders, and rock up to 1/3 cu yd measured by volume. See Section 31 2316.26 for removal of larger material.
  - J. Correct areas that are over-excavated and load-bearing surfaces that are disturbed; see Section 31 2323.
  - K. Grade top perimeter of excavation to prevent surface water from draining into excavation.
  - L. Remove excavated material that is unsuitable for re-use from site.
  - M. Stockpile excavated material to be re-used in area designated on site in accordance with Section 31 2200.
  - N. Remove excess excavated material from site.
  - O. SHEETING AND BRACING
    1. The Contractor shall furnish, place, remove or leave in place all sheeting and bracing required to support the sides of all trenches or other excavations for this project.
    2. The Contractor shall be solely responsible for the safety of the workmen and the adjacent facilities from danger of caving and sliding and all work is to be done shall be in strict accordance with the Department of Labor, Occupational Safety and Health Administration regulations and suggested practices for construction excavations and/or other applicable codes and regulations. Special precautions shall be taken to guard against any damage to or settlement of pavements, building, walls, pipes, ducts or other structures and

facilities which are adjacent to the work.

3. The cost of providing and removing, or leaving in place, sheeting, shoring and bracing shall be included in the cost of the various items of work under this contract and no additional compensation will be allowed therefore. Any sheeting which the Contractor chooses to leave in place shall be cut off at least two (2) feet below the finished grade.
4. Remove sheeting and shoring, etc., as backfilling operations progress, taking all necessary precautions to prevent collapse of excavation sides, all at no additional cost to the Owner.

**P. EXCAVATION FOR TRENCHES AND SUBSURFACE STRUCTURES**

1. Excavate to the cross-sections and grades as shown and deposit excavated materials to prevent cave-ins or material falling or sliding back into the excavation.
2. All trenches and excavations: To conform to the OSHA standards of protection of employees in excavations (29 CFR 1926.652.)
3. Includes all earth, rock and miscellaneous material encountered.
4. Excavate to exact depth and grade, with bottom tamped hard.
5. Excavate bell holes by hand.
6. Report wet or unstable trench bottom to Engineer. Should Engineer deem unsuitable, excavate to depth directed and backfill with approved bedding material to trench bottom or as otherwise directed.
7. Banks and sides: Angle of recline or sheeting, shoring, and bracing as required for safety and conforming to all applicable laws, rules, regulations and codes. Remove as backfill is placed unless otherwise directed by Engineer.
8. Protection: Provide lights and barricades to properly protect persons and property. Assume full responsibility for all accidents during the course of work.

**2.05 PROTECTION**

- A. Prevent displacement of banks and keep loose soil from falling into excavation; maintain soil stability.
- B. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.

**END OF SECTION**

**SECTION 31 2316.13  
TRENCHING FOR SITE UTILITIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Backfilling and compacting for utilities outside the building to utility main connections.

**1.02 RELATED REQUIREMENTS**

- A. Section 31 2200 - Grading: Site grading.
- B. Section 31 2316 - Excavation: Building and foundation excavating.
- C. Section 31 2316.26 - ROCK REMOVAL: Removal of rock during excavating.
- D. Section 31 2323 - FILL AND BACKFILL: Backfilling at building and foundations.

**1.03 REFERENCES**

- A. AASHTO T 180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop 2022, with Errata .
- B. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)) 2012 (Reapproved 2021).
- C. ASTM D1556/D1556M - Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method 2015, with Editorial Revision (2016).
- D. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)) 2012 (Reapproved 2021).
- E. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method 2015.
- F. ASTM D 2922 - Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth); 2005.
- G. ASTM D 3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth); 2005.

**1.04 DEFINITIONS**

- A. Finish Grade Elevations: Indicated on drawings.
- B. Subgrade Elevations: Indicated on drawings.

**1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Materials Sources: Submit name of imported materials source.
- C. Fill Composition Test Reports: Results of laboratory tests on proposed and actual materials used.
- D. Compaction Density Test Reports.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. When necessary, store materials on site in advance of need.
- B. When fill materials need to be stored on site, locate stockpiles where designated.
  - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
  - 2. Prevent contamination.
  - 3. Protect stockpiles from erosion and deterioration of materials.
- C. Verify that survey bench marks and intended elevations for the Work are as indicated.
- D. Protect plants, lawns, rock outcroppings, and other features to remain.
- E. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

## **PART 2 EXECUTION**

### **2.01 EXAMINATION**

- A. Verify that survey bench marks and intended elevations for the work are as indicated.

### **2.02 TRENCHING**

- A. Notify Engineer of unexpected subsurface conditions and discontinue affected Work in area until notified to resume work.
- B. Slope banks of excavations deeper than 4 feet to angle of repose or less until shored.
- C. Cut trenches wide enough to allow inspection of installed utilities.
- D. Hand trim excavations. Remove loose matter.
- E. Remove large stones and other hard matter that could damage piping or impede consistent backfilling or compaction.
- F. Remove lumped subsoil, boulders, and rock up to 1/3 cu yd measured by volume. See Section 31 2316.26 for removal of larger material.
- G. Remove excavated material that is unsuitable for re-use from site.
- H. Stockpile excavated material to be re-used in area designated on site in accordance with Section 31 2200.
- I. Remove excess excavated material from site.
- J. Provide temporary means and methods, as required, to remove all water from trenching until directed by the Engineer. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack of dewatering or surface water control.
- K. Determine the prevailing groundwater level prior to trenching. If the proposed trench extends less than 1 foot into the prevailing groundwater, control groundwater intrusion with perimeter drains routed to sump pumps, or as directed by the Engineer.

### **2.03 PREPARATION FOR UTILITY PLACEMENT**

- A. Cut out soft areas of subgrade not capable of compaction in place. Backfill per drawing details.
- B. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- C. Until ready to backfill, maintain excavations and prevent loose soil from falling into excavation.

### **2.04 BACKFILLING**

- A. Backfill to contours and elevations indicated using unfrozen materials.
- B. Employ a placement method that does not disturb or damage other work.
- C. Systematically fill to allow maximum time for natural settlement. Do not fill over porous, wet, frozen or spongy subgrade surfaces.
- D. Maintain optimum moisture content of fill materials to attain required compaction density.
- E. Granular Fill: Place and compact materials in equal continuous layers not exceeding 6 inches compacted depth.
- F. Soil Fill: Place and compact material in equal continuous layers not exceeding 6 inches compacted depth.
- G. Correct areas that are over-excavated.
- H. Compaction Density: See Section 31 2323 - Fill and Backfill,
- I. Reshape and re-compact fills subjected to vehicular traffic.

### **2.05 FIELD QUALITY CONTROL**

- A. See Section 31 2323 - Fill and Backfill, for specific requirements for field inspection and testing.
- B. If tests indicate work does not meet specified requirements, remove work, replace and retest.
- C. Frequency of Tests: At discretion of Engineer and as described in Section 31 2323.

## **2.06 CLEANING**

- A. Leave unused materials in a neat, compact stockpile.
- B. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.
- C. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

**END OF SECTION**

## **SECTION 31 2316.26 ROCK REMOVAL**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Removal of identified rock during excavation.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 01 1000 - Summary
- B. Section 31 2323 - FILL AND BACKFILL: Fill materials.
- C. Section 31 1050 - Site Preparation
- D. Section 31 2200 - Grading
- E. Section 31 1500 - Site Restoration

#### **1.03 REFERENCES**

- A. NFPA 495 - Explosive Materials Code; National Fire Protection Association; 2006.

#### **1.04 DEFINITION**

- A. Removal of subsurface rock larger than two (2) cubic yard in volume, encountered during excavation utilizing mechanical methods.

#### **1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Provide copies of required permits.

#### **1.06 EXAMINATION**

- A. Verify site conditions and location of nearby buildings, structures and other facilities, recording irregularities which exist prior to work of this Section.
- B. Verify locations of nearby underground utilities and structures.
- C. Establish quantity of rock to be removed to meet project requirements.
- D. Determine the proposed method of Rock Removal.

#### **1.07 REGULATORY REQUIREMENTS**

- A. Conform to applicable codes and laws regarding the selected rock removal method.

#### **1.08 PROJECT CONDITIONS**

- A. Schedule Work to avoid working hours of occupied buildings nearby.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS**

- A. Mechanical Disintegration Compound: Grout mix of materials that expand on curing.

### **PART 3 EXECUTION**

#### **3.01 ROCK REMOVAL - HAMMERING METHOD**

- A. The Contractor will be required to conduct a pre-removal survey of all houses and structures within 200-feet of areas where hammering will occur.
  - 1. The survey shall consist minimally of an interior and exterior inspection of all structures, noting all masonry cracks, flaws, wet or damp areas, broken glass and any other visual defects encountered, with a written report submitted to the Engineer. Dated pictures, either still or video are encouraged, particularly to document pre-existing conditions.
  - 2. The Contractor shall advise the owner of adjacent buildings or structures in writing of planned hammering operations.
  - 3. Allow sufficient time for Owners to implement their own protective measures.
- B. All existing pipes or structures exposed during excavation shall be adequately protected from damage before proceeding with the hammering.



- C. Any injury to any persons or damage to the work, property, or existing pipes or structures shall be repaired or rebuilt by the Contractor at his expense.
- D. Disintegrate rock and remove from excavation.
- E. Remove excavated material greater than 8-inches from site.
- F. Correct unauthorized rock removal or overbreak.

### **3.02 ROCK REMOVAL - MECHANICAL METHOD**

- A. Excavate and remove rock by mechanical method (drilling holes and utilizing expansion tools to fracture rock) at locations required by the Contract Documents and when trimming bottom or sides of excavation is necessary to meet project requirements.
- B. Cut away rock at bottom of excavation to form level bearing surface for foundations of buildings and structures.
- C. Remove shaled layers to provide sound and unshattered base for foundations.
- D. Remove excavated materials from site.
- E. Correct unauthorized rock removal.

### **3.03 ROCK REMOVAL - TRENCHING METHOD**

- A. The contractor will be required to conduct a pre-trenching survey of all houses and structures within 200-feet of areas where trenching will occur.
  - 1. The survey shall consist minimally of an interior and exterior inspection of all structures, noting all masonry cracks, flaws, wet or damp areas, broken glass and any other visual defects encountered, with a written report submitted to the Engineer. Dated pictures, either still or video are encouraged, particularly to document pre-existing conditions. The Contractor will also be required to retain the services of a New York State licensed testing laboratory to monitor seismic activity, utilizing the most current seismographic methods. Results shall be provided to the Engineer.
  - 2. The Contractor shall advise the owner of adjacent buildings or structures in writing of planned operations.
  - 3. Allow sufficient time for Owners to implement their own protective measures.
- B. All existing pipes or structures exposed during excavation shall be adequately protected from damage before proceeding with the trenching.
- C. Any injury to any persons or damage to the work, property, or existing pipes or structures shall be repaired or rebuilt by the Contractor at his expense.
- D. Stockpile spoils for reuse.
- E. Remove excess material from site.
- F. Correct unauthorized rock removal.
- G. Remove excavated materials greater than 6-inches from site.

**END OF SECTION**

**SECTION 31 2323  
FILL AND BACKFILL**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Filling, backfilling, and compacting for slabs-on-grade, paving, and utilities within the building.
- B. Backfilling and compacting for utilities outside the building to utility main connections.
- C. Filling holes, pits, and excavations generated as a result of removal (demolition) operations.

**1.02 RELATED REQUIREMENTS**

- A. Section 31 2200 - Grading: Removal and handling of soil to be re-used.
- B. Section 31 2316 - Excavation: Removal and handling of soil to be re-used.
- C. Section 31 2316.13 - Trenching: Excavating for utility trenches outside the building to utility main connections.
- D. Section 31 2316.26 - ROCK REMOVAL: Removal of rock during excavating.

**1.03 REFERENCE STANDARDS**

- A. AASHTO T 180 - Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop 2022, with Errata .
- B. ASTM C136/C136M - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates 2019.
- C. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)) 2012 (Reapproved 2021).
- D. ASTM D1556/D1556M - Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method 2015, with Editorial Revision (2016).
- E. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)) 2012 (Reapproved 2021).
- F. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method 2015.
- G. ASTM D2487 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System) 2017, with Editorial Revision (2020).
- H. ASTM D 2922 - Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth); 2005.
- I. ASTM D 3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth); 2005.
- J. ASTM D4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils 2017, with Editorial Revision (2018).
- K. New York State Department of Transportation, "Standard Specifications for Construction and Materials", May 1, 2023 Edition, and the latest amendments, herein after referred to as the "Standard Specifications", form a part of these Specifications to the extent of the references thereof.

**1.04 DEFINITIONS**

- A. Finish Grade Elevations: Indicated on drawings.
- B. Subgrade Elevations: 4 inches below finish grade elevations indicated on drawings, unless otherwise indicated.

**1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Fill Composition Test Reports: Results of laboratory tests on proposed and actual materials used, including manufactured fill.

- C. For all materials other than General Fill, submit a report containing the following information prior to using the material:
  - 1. Source of Material
  - 2. Relevant NYSDOT Item Numbers (if applicable)
  - 3. Composition of material
  - 4. Sieve Analysis of Material (Performed within last 4 months)
- D. For Controlled Low Strength Material - Submit a project specific mix design and test reports from previous mix designs demonstrating compliance with the specifications

## **1.06 DELIVERY, STORAGE, AND HANDLING**

- A. When necessary, store materials on site in advance of need.
- B. When fill materials need to be stored on site, locate stockpiles where designated.
  - 1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
  - 2. Prevent contamination.
  - 3. Protect stockpiles from erosion and deterioration of materials.
- C. Verify that survey bench marks and intended elevations for the Work are as indicated.

## **PART 2 PRODUCTS**

### **2.01 FILL MATERIALS**

- A. General Fill: Subsoil excavated on-site.
  - 1. Conforming to NYS DOT Material Standard 733-08 Embankment in Place
  - 2. Graded.
  - 3. Free of lumps larger than 3 inches, rocks larger than 2 inches, and debris.
  - 4. Conforming to ASTM D2487 Group Symbol CL.
- B. Crushed Stone - Size #1
  - 1. Crushed Stone for use as Pipe Bedding, Drainage Stone, structure base material, as otherwise indicated in the drawings, or ordered by the Engineer.
  - 2. Material shall conform to the requirements of NYS DOT Material Standard 703-02 for Crushed Bedrock (Material Designation 703-0201) or Crushed Gravel (Material Designation 703-0202) and size designations in Table 703-4 for Size 1 Crushed Stone
- C. Crushed Stone - Size #2
  - 1. Crushed Stone for use as Pipe Bedding, Drainage Stone, structure base material, as otherwise indicated in the drawings, or ordered by the Engineer.
  - 2. Material shall conform to the requirements of NYS DOT Material Standard 703-02 for Crushed Bedrock (Material Designation 703-0201) or Crushed Gravel (Material Designation 703-0202) and size designations in Table 703-4 for Size 2 Crushed Stone
- D. Crushed Stone - Size #4
  - 1. Crushed Stone as ordered by the Engineer to support an unstable area and shown on the Drawings to be placed under the pipe bedding material,
  - 2. Material shall conform to the requirements of NYS DOT Material Standard 703-02 for Crushed Bedrock (Material Designation 703-0201) or Crushed Gravel (Material Designation 703-0202) and size designations in Table 703-4 for Size 4 Crushed Stone
- E. Structural Fill / Subbase Stone - 1" Run of Crusher Stone: Imported borrow.
  - 1. Material shall conform to the requirements of NYS DOT Material Standard 733-04 for "Subbase Course" and size designations in NYS DOT Table 733-04A for Type 1 Subbase
  - 2. NYSDOT Item 304.11 may be used for this run of crusher stone.
  - 3. Gradation requirements for this run of crusher stone shall conform to the following:
    - a. 3 inch sieve: 100 percent passing
    - b. 2 inch sieve: 90 to 100 percent passing.
    - c. 1/4 inch sieve: 30 to 65 percent passing.
    - d. No. 40 sieve: 5 to 40 percent passing.
    - e. No. 200 sieve: 0 to 10 percent passing.

- F. Structural Fill / Subbase Stone - 1-1/2" Run of Crusher Stone: Imported borrow.
  - 1. Material shall conform to the requirements of NYS DOT Material Standard 733-04 for "Subbase Course" and size designations in NYS DOT Table 733-04A for Type 2 Subbase
  - 2. NYSDOT Item 304.12 may be used for this run of crusher stone.
  - 3. Gradation requirements for this run of crusher stone shall conform to the following:
    - a. 2 inch sieve: 100 percent passing.
    - b. 1/4 inch sieve: 25 to 60 percent passing.
    - c. No. 40 sieve: 5 to 40 percent passing.
    - d. No. 200 sieve: 0 to 10 percent passing.
- G. Structural Fill / Subbase Stone - 4" Run of Crusher Stone: Imported borrow.
  - 1. Material shall conform to the requirements of NYS DOT Material Standard 733-04 for "Subbase Course" and size designations in NYS DOT Table 733-04A for Type 3 Subbase
  - 2. NYSDOT Item 304.13 may be used for this run of crusher stone.
  - 3. Gradation requirements for this run of crusher stone shall conform to the following:
    - a. 4" inch sieve: 100 percent passing.
    - b. 1/4 inch sieve: 30 to 75 percent passing.
    - c. No. 40 sieve: 5 to 40 percent passing.
    - d. No. 200 sieve: 0 to 10 percent passing.
- H. Stone Dust:
  - 1. Stone dust shall consist of clean, crushed limestone.
  - 2. Gradation requirements for this run of stone dust shall conform to the following:
    - a. 1/4" inch sieve: 100 percent passing.
    - b. No. 10 sieve: 55 to 75 percent passing
    - c. No. 40 sieve: 20 to 40 percent passing
    - d. No. 200 Sieve: 7 to 15 percent passing
- I. Controlled Low Strength Material (Flowable Fill)
  - 1. Controlled Low Strength Material as indicated on the drawings or ordered by the Engineer
  - 2. Material shall conform to the requirements of NYS DOT Material Standard 733-01 for "Controlled Low Strength Material"
  - 3. NYSDOT Item 204.01 may be used for this product.
- J. Underdrain Filter Stone: NYSDOT Underdrain Filter Type I
  - 1. Material shall conform to the requirements of NYS DOT Material Standard 733-20 for "Underdrain Filter" and size designations in NYS DOT Table 733-20A for Type 1 Underdrain Filter
  - 2. NYSDOT Item 605.0901 may be used for this run of underdrain filter
- K. Washed Coarse Sand: Fine aggregate is to be clean, sharp, uncoated grains of natural sand, free from loam, clay, organic impurities, or frozen material, in compliance with ASTM C33. After approval, no change is to be made in the source of supply without written approval of the Engineer.
  - 1. Gradation requirements for Washed Coarse Sand shall conform to the following:
    - a. 1/2 inch sieve: 100 percent passing.
    - b. 1/4 inch sieve: 90 to 100 percent passing.
    - c. No. 200 sieve: 0 to 5 percent passing.
- L. Topsoil: Remove all subsoil, clay lumps, stones 1" in greatest dimension or larger, weeds, stumps and roots from stripping, or furnish from approved off-site sources at Contractor's expense.
  - 1. Natural, fertile characteristic of productive soils in vicinity. Uniform in composition and texture. Clean, free from subsoil, clay lumps, stones, weeds, stumps, roots, toxic substances, and debris or similar substances 1" or more in greatest dimension.
  - 2. pH 5.5 to 7.5; 6% minimum organic content. 20% to 80% passing No. 200 sieve.
  - 3. Schedule removal of topsoil from each area to minimize erosion of subsoil. Remove only these areas of topsoil needed to coordinate with the construction schedule as approved by Engineer.

## **2.02 SOURCE QUALITY CONTROL**

- A. See Section 01 4000 - Quality Requirements, for general requirements for testing and analysis of soil material.
- B. Where fill materials are specified by reference to a specific standard, test and analyze samples for compliance before delivery to site.
- C. If tests indicate materials do not meet specified requirements, change material and retest.
- D. Provide materials of each type from same source throughout the Work.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Identify required lines, levels, contours, and datum locations.
- B. See Section 31 2200 for additional requirements.
- C. Verify subdrainage, dampproofing, or waterproofing installation has been inspected.
- D. Verify structural ability of unsupported walls to support imposed loads by the fill.
- E. Verify underground tanks are anchored to their own foundations to avoid flotation after backfilling.
- F. Verify areas to be filled are not compromised with surface or ground water.

### **3.02 PREPARATION**

- A. Scarify and proof roll subgrade surface to a depth of 6 inches to identify soft spots.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with general fill.
- C. Compact subgrade to density equal to or greater than requirements for subsequent fill material.
- D. Until ready to fill, maintain excavations and prevent loose soil from falling into excavation.

### **3.03 FILLING**

- A. GENERAL:
  - 1. For each classification listed below, place acceptable soil material in layers to required subgrade elevations. Each layer shall be proof rolled under the supervision of the site inspector and/or geotechnical engineer accepted by the Engineer of Record.
  - 2. In excavations: Use satisfactory excavated or borrow material as determined by the Engineer.
  - 3. Under asphalt pavements: Use subbase materials.
- B. Backfill excavations as promptly as progress of work permits, but not until completion of the following:
  - 1. Acceptance of construction below finish grade, including, where applicable, damp proofing or waterproofing.
  - 2. Inspecting, testing, approving, and recording locations of underground utilities.
  - 3. Removing concrete framework.
  - 4. Removing shoring and bracing, and backfilling of voids with satisfactory materials.
  - 5. Removing trash and debris.
- C. Placement and Compaction
  - 1. Place backfill material in layers not more than 6" in loose depth under and around structures, 8" in loose depth in paved areas and 24" in loose depth in unpaved areas.
  - 2. Before compacting, moisten or aerate each layer as necessary to provide the optimum moisture content.
  - 3. Compact each layer to required percentage of maximum density for the area.
  - 4. Do not place backfill material on surfaces that are muddy, frozen or contain frost or ice.
  - 5. Place backfill materials evenly adjacent to structures, to required elevations.
  - 6. Take care to prevent wedging action of backfill against structures by carrying the material uniformly around the structure to approximately the same elevation in each lift.

### **3.04 COMPACTION**

- A. Backfilling shall not be started until conditions have been inspected and approved by Engineer.
- B. All unstable materials including wood, trash, refuse, and other debris shall be removed from spaces to be filled.
- C. Provide not less than the following percentages of maximum dry density of soil material compacted at optimum moisture content, for the actual density of each layer of soil material-in-place:
  - 1. Each layer of backfill material shall be compacted to a density of not less than 98% maximum dry density under and around structures, 95% maximum dry density in paved areas and 90% maximum dry density in unpaved areas. Maximum dry density shall be as determined by ASTM-D1557 Modified Proctor - latest edition.

### **3.05 MOISTURE CONTROL**

- A. Where the subgrade or layer of soil material must be moisture conditioned before compaction, uniformly apply water to the surface of subgrade, or layer of soil material, to prevent free water appearing on the surface during or subsequent to compaction operations.
- B. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified maximum dry density.
- C. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by harrowing until the moisture content is reduced to a satisfactory value, as determined by moisture-density relation tests.
- D. Maintain temporary means and methods, as required, to remove all water while fill is being placed as required, or until directed by the Engineer. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack of dewatering or surface water control.

### **3.06 FIELD QUALITY CONTROL**

- A. A testing agency satisfactory to the Engineer shall inspect and test subgrade and fill layer densities before further construction work is performed thereon. The Contractor will pay for the testing services on field density tests. The following criteria will be used to determine the number of field density tests:
  - 1. In each compacted fill layer, not exceeding 24-inch vertical intervals, one field density test for every 500 square feet of overlying area, but in no case less than 3 tests will be conducted.
  - 2. In pipe trenches, one field density test for every 50-feet of pipeline installed and/or two tests at all open-cut road crossings, at maximum 24-inch vertical intervals.
  - 3. At paved areas, at least one field density test for every 500 square feet of paved area, but not less than 3 tests, at maximum 24-inch vertical intervals. Each lift shall be proof rolled under the supervision of the site inspector and/or geotechnical engineer accepted by the Engineer of Record.
  - 4. At abutments, one field density test at each abutment.
- B. When initial tests indicate non-compliance with the specification, subsequent retesting occasioned by the non-compliance shall be performed at the Contractor's expense.
  - 1. The results of the density tests of soil-in-place will be considered satisfactory if the average of any 4 consecutive density tests which may be selected are in each instance equal to or greater than the specified density, and if not more than one density test out of 5 has a value of more than 2% below the required density.

### **3.07 CLEANING**

- A. See Section 01 7419 - Construction Waste Management and Disposal, for additional requirements.
- B. Leave unused materials in a neat, compact stockpile.
- C. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.

D. Leave borrow areas in a clean and neat condition. Grade to prevent standing surface water.

**END OF SECTION**

**SECTION 32 0190  
OPERATION AND MAINTENANCE OF PLANTING**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Maintain plants in manner that promotes health, growth, color and appearance, to quality levels specified; replace dead, dying, and damaged plants at no extra cost to Owner.
  - 1. It is Contractor's responsibility to determine type and quantity of soil amendments and fertilizer required.
- B. Maintain newly planted landscape plants, including trees, shrubs, hedges, ground cover, perennials, flowering bulbs, and annuals.
- C. Clean up landscaped areas.
- D. Maintenance Period: The time frame covered by these requirements is 90 days:
  - 1. Start Date: The date upon which the new plantings are accepted as complete by Engineer.

**1.02 RELATED REQUIREMENTS**

- A. Section 01 5713 - Temporary Erosion and Sediment Control.
- B. Section 31 2200 - Grading.
- C. Section 32 9219 - Seeding.
- D. Section 32 9300 - Plants.

**1.03 REFERENCE STANDARDS**

- A. ANSI A300 Part 1 - American National Standard for Tree Care Operations - Tree, Shrub, and Other Woody Plant Management - Standard Practices (Pruning) 2017.
- B. ANSI Z133.1 - American National Standard for Arboricultural Operations - Safety Requirements 2017.
- C. ASTM D4972 - Standard Test Methods for pH of Soils 2019.

**1.04 PROPOSAL SUBMITTALS**

- A. Submit complete maintenance plan, showing:
  - 1. Fertilizer type, quantity, and schedule of application.
  - 2. Soil amendment type, quantity, and schedule of application.
  - 3. Personnel assigned, including supervisor.
  - 4. Inspection procedures, diagnostics, and remedies.

**1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Soil Tests and Analysis: Submit report showing number of samples, test results, and recommendations for soil amendments and fertilizer.
- C. Product Data: Manufacturer's data sheets on each fertilizer, herbicide, pesticide, and other chemical material to be used, showing trade name, chemical composition, mixing instructions, recommended application rate, storage and handling instructions, and application instructions.
- D. Installer Qualifications: As specified.

**1.06 QUALITY ASSURANCE**

- A. Installer Qualifications:
  - 1. Maintenance Contractor: The contractual entity that performed the planting installation.

**1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver U.S. EPA-controlled materials to site in original containers with legible labels indicating registration number and registered uses.



- B. Deliver fertilizer and manufactured soil amendments to site in original containers bearing manufacturer's chemical analysis, name, trade name or trademark, and indication of compliance with applicable state and Federal laws and regulations ; alternatively, bulk delivery with equivalent certificate is acceptable.
- C. Store fertilizer, soil amendments, and mulch in dry locations away from contaminants.
- D. Do not store pesticides, herbicides, or other chemical treatment materials in locations where they could damage seeds or plants.

## **PART 2 PRODUCTS - NOT USED**

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. If soil analysis has not already been performed, take sufficient samples to obtain a comprehensive analysis; perform analysis in accordance with ASTM D 4972.

### **3.02 LANDSCAPE MAINTENANCE - GENERAL**

- A. Protect existing vegetation, pavements, and facilities from damage due to maintenance activities; restore damaged items to original condition or replace, at no extra cost to Owner.
- B. General Cleanup: Remove debris from all landscape areas at least once a week and from turf areas before each mowing.
  - 1. Debris consists of trash, rubbish, dropped leaves, downed branches and limbs of all sizes, dead vegetation, rocks, and other material not belonging in landscaped areas.
  - 2. Remove debris from site and dispose of properly.
- C. Watering, Soil Erosion, and Sedimentation Control: Comply with Federal, state, local, and other regulations in force; prevent over-watering, run-off, erosion, puddling, and ponding.
  - 1. Repair temporary erosion control mechanisms provided by others.
  - 2. Repair eroded areas and replant, when caused by inadequate maintenance.
  - 3. Prevent sediment from entering storm drains.
- D. Trees: Exercise care to avoid girdling trees; provide protective collars if necessary; remove protective collars at end of maintenance period.
- E. Fertilizing: Apply fertilizer only when necessary.
- F. Drainage Channels: Remove obstructions in gutters, catch basins, storm drain inlets, yard drains, swales, ditches, and overflows.
  - 1. Remove grates from catch basins to clean.
  - 2. Prevent encroachment of other vegetation on turfed surface drainage channels.
- G. Health Maintenance: Inspect all plants regularly for health:
  - 1. Eradicate diseases and damaging pests, regardless of severity or speed of effect.
  - 2. Treat accidental injuries and abrasions.
  - 3. If a plant is unhealthy but not yet dead, according to specified definitions, determine reason(s) and take remedial action immediately.
  - 4. Remove dead plants immediately upon determining that they are dead.
- H. Pesticide and Herbicide Application: Comply with manufacturer's instructions and recommendations and applicable regulations.
  - 1. Obtain Owner's approval prior to each application.
  - 2. Apply in manner to prevent injury to personnel and damage to property due to either direct spray or drifting, both on and off Owner's property.
  - 3. Use backflow preventers on hose bibbs used for mixing water; prevent spills.
  - 4. Inspect equipment daily before application; repair leaks, clogs, wear, and damage.
  - 5. Do not dispose of excess mixed material, unmixed material, containers, residue, rinse water, or contaminated articles on site; dispose of off site in legal manner.
  - 6. Rinse water may be used as mix water for next batch of same formulation.
  - 7. Contractor is responsible for all recordkeeping, submissions, and reports required by laws and regulations.

- I. Replanting: Perform replacement and replanting immediately upon removal of dead plant.

### **3.03 IRRIGATION**

- A. Irrigation: Do not allow plants to wilt; apply water as required to supplement rainfall; do not waste water; do not water plants or areas not needing water; do not water during rainfall; shut off water flow when finished; repair leaks.
  - 1. Provide backflow preventers on hose bibbs used for irrigation hoses.

### **3.04 PLANTING BED MAINTENANCE**

- A. Planting beds include all planted areas except turf.
- B. Begin maintenance immediately after plants have been installed; inspect at least once a week and perform needed maintenance promptly.
- C. Keep planting beds free of pests; remove weeds and grass by hand before reaching 1 inch height.
- D. Do not allow climbing, twining, or creeping plants to encroach into other species.
- E. Replace mulch as required and remove debris.

### **3.05 TREE AND SHRUB MAINTENANCE**

- A. Trees will be considered dead when main leader has died back or when 25 percent or more of crown has died ; except as otherwise indicated for palm trees.
- B. Shrubs will be considered dead when 25 percent or more of plant has died.
- C. Inspect woody plants for health by scraping up to 1/16 inch square area of bark; no green cambium layer below bark shall be evidence of death.
- D. Adjust stakes, guys and turnbuckles, ties, and trunk wrap as required to promote growth and avoid girdling.
- E. Pruning: Unless otherwise indicated, prune only to maintain balanced natural shape; follow recommendations of ANSI A300 and ANSI Z133.1 and best local practices for species involved.
- F. Shrubs: Prune at least once during maintenance period at best time to influence ultimate shape and size for the particular species.
  - 1. Prune to balance the plant's form and according to its natural growth characteristics.
  - 2. Remove water shoots, suckers, and branches not conforming to desired shape and size.
- G. Hedges: Trim to encourage growth into voids and gaps.

### **3.06 CLEANING**

- A. Remove fallen deciduous leaves in Fall; removal may wait until all leaves have fallen.
- B. Clean adjacent pavements of plant debris and other debris generated by maintenance activities.
- C. Remove and dispose of general cleanup debris and biodegradable debris in a proper manner; Owner's trash collection facilities may be used.
- D. Remove and dispose of general cleanup debris and biodegradable debris in a proper manner.
  - 1. Biodegradable Debris: Owner will designate a compost pile on site where biodegradable debris may be deposited; branches and bark are not considered biodegradable.
  - 2. Branches and Bark: Owner will designate a wood chip storage area; machine-chip all branch and bark debris.
  - 3. Non-Biodegradable Debris: Owner's trash collection facilities may be used.

### **3.07 CLOSEOUT ACTIVITIES**

- A. 10 days prior to end of maintenance period, submit request for final inspection.
- B. Final inspection will be conducted by Engineer.

### **END OF SECTION**

## SECTION 32 9219 SEEDING

### PART 1 GENERAL

#### 1.01 SECTION INCLUDES

- A. Preparation of subsoil.
- B. Placing topsoil.
- C. Seeding, mulching and fertilizer.
- D. Maintenance.

#### 1.02 RELATED REQUIREMENTS

- A. Section 31 1500 - Site Restoration: Restoration of site to condition before work began.
- B. Section 31 2200 - Grading: Preparation of subsoil and placement of topsoil in preparation for the work of this section.
- C. Section 31 2323 - Fill and Backfill: Topsoil material.
- D. Section 32 0190 - Operation and Maintenance of Planting: Post-occupancy maintenance.

#### 1.03 DEFINITIONS

- A. Weeds: Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

#### 1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Topsoil samples.
- C. Maintenance Data: Include maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer .
- D. Maintenance Contract.

#### 1.05 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of seed mixture.

#### 1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable. Deliver seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.

#### 1.07 MAINTENANCE SERVICE (SEE END OF SECTION)

### PART 2 PRODUCTS

#### 2.01 SEED MIXTURE

- A. Seed Mixture:

COMMON NAME	PERCENT BY WEIGHT	PERCENT PURITY	PERCENT GERMINATION
Kentucky Blue Grass	50	85	80
Red or Chewing Fescue Grass	20	97	80
Norlea Perennial Rye	30	92	90

#### 2.02 SOIL MATERIALS

- A. Topsoil: as specified in Section 31 2323.

## **2.03 ACCESSORIES**

- A. Mulching Material: Oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.
- B. Fertilizer: 10-20-10; recommended for grass, with fifty percent of the elements derived from organic sources; of proportion necessary to eliminate any deficiencies of topsoil, as indicated by analysis.
- C. Water: Clean, fresh and free of substances or matter that could inhibit vigorous growth of grass.
- D. Erosion Fabric: Jute matting, open weave.
- E. Stakes: Softwood lumber, chisel pointed.
- F. String: Inorganic fiber.
- G. Edging: Galvanized steel.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that prepared soil base is ready to receive the work of this Section.

### **3.02 PREPARATION**

- A. Prepare subgrade in accordance with Section 31 2200.
- B. Place topsoil in accordance with Section 31 2200.
- C. Install edging at periphery of seeded areas in straight lines to consistent depth.

### **3.03 FERTILIZING**

- A. Apply fertilizer in accordance with manufacturer's instructions.
- B. Apply after smooth raking of topsoil and prior to roller compaction.
- C. Do not apply fertilizer at same time or with same machine as will be used to apply seed.
- D. Mix thoroughly into upper 2 inches of topsoil.
- E. Lightly water to aid the dissipation of fertilizer.

### **3.04 SEEDING**

- A. Apply seed at a rate of 5 lbs per 1000 sq ft evenly in two intersecting directions. Rake in lightly.
- B. Do not seed areas in excess of that which can be mulched on same day.
- C. Do not sow immediately following rain, when ground is too dry, or during windy periods.
- D. Immediately following seeding and compacting, apply mulch to a thickness of 1/8 inches. Maintain clear of shrubs and trees.
- E. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.
- F. Following germination, immediately re-seed areas without germinated seeds that are larger than 4 by 4 inches.

### **3.05 PROTECTION**

- A. Identify seeded areas with stakes and string around area periphery. Set string height to 12 inches. Space stakes at 72 inches.
- B. Cover seeded slopes where grade is 4 inches per foot or greater with erosion fabric. Roll fabric onto slopes without stretching or pulling.
- C. Lay fabric smoothly on surface, bury top end of each section in 6 inch deep excavated topsoil trench. Provide 12 inch overlap of adjacent rolls. Backfill trench and rake smooth, level with adjacent soil.
- D. Secure outside edges and overlaps at 36 inch intervals with stakes.

- E. Lightly dress slopes with topsoil to ensure close contact between fabric and soil.
- F. At sides of ditches, lay fabric laps in direction of water flow. Lap ends and edges minimum 6 inches.

### **3.06 MAINTENANCE**

- A. See Section 32 0190 - Operation and Maintenance of Planting for post-occupancy maintenance.
- B. Mow grass at regular intervals to maintain at a maximum height of 2-1/2 inches. Do not cut more than 1/3 of grass blade at any one mowing.
- C. Neatly trim edges and hand clip where necessary.
- D. Immediately remove clippings after mowing and trimming.
- E. Water to prevent grass and soil from drying out.
- F. Roll surface to remove minor depressions or irregularities.
- G. Control growth of weeds. Apply herbicides in accordance with manufacturer's instructions. Remedy damage resulting from improper use of herbicides.
- H. Immediately reseed areas that show bare spots.
- I. Protect seeded areas with warning signs during maintenance period.

**END OF SECTION**

## **SECTION 32 9300 PLANTS**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Preparation of subsoil.
- B. Topsoil bedding.
- C. New trees, plants, and ground cover.
- D. Relocated trees, plants, and ground cover.
- E. Mulch and Fertilizer.
- F. Maintenance.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 31 2200 - Grading: Topsoil material.
- B. Section 31 2323 - Fill and Backfill: Topsoil material.
- C. Section 32 0190 - Operation and Maintenance of Planting: Post-occupancy maintenance.

#### **1.03 DEFINITIONS**

- A. Weeds: Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

#### **1.04 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Submit list of plant life sources.
- C. Sample of top dressing mulch for approval prior to delivery to site.

#### **1.05 QUALITY ASSURANCE**

- A. Nursery Qualifications: Company specializing in growing and cultivating the plants with three years documented experience.
- B. Installer Qualifications: Company specializing in installing and planting the plants with 3 years experience.

#### **1.06 REGULATORY REQUIREMENTS**

- A. Comply with regulatory agencies for fertilizer and herbicide composition.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of plants, fertilizer and herbicide mixture.
- C. Plant Materials: Certified by federal department of agriculture; free of disease or hazardous insects.

#### **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.
- B. Plants shall bear a tag showing genus, species and variety of all trees delivered to the site and remain on all plants until inspected.
- C. Protect and maintain plant life until planted.
- D. Deliver plant life materials immediately prior to placement. Keep plants moist.

#### **1.08 FIELD CONDITIONS**

- A. Do not install plant life when ambient temperatures may drop below 35 degrees F or rise above 90 degrees F.

- B. Do not install plant life when wind velocity exceeds 30 mph.

#### **1.09 WARRANTY**

- A. Provide one year warranty.
- B. Warranty: Include coverage for one continuous growing season; replace dead or unhealthy plants.
- C. Replacements: Plants of same size and species as specified, planted in the next growing season, with a new warranty commencing on date of replacement.

#### **1.10 MAINTENANCE SERVICE**

- A. Maintain plant life immediately after placement. Continue maintenance until termination of warranty period.
- B. Maintenance to include:
  - 1. Irrigating sufficiently to saturate root system.
  - 2. Prune only dead or broken branches.
  - 3. Maintaining guys and stakes. Repair or replace accessories when required.
  - 4. Replacement of mulch.

### **PART 2 PRODUCTS**

- A. Plants: Species and size identified in plant schedule, grown in climatic conditions similar to those in locality of the work.

#### **2.02 SOIL MATERIALS**

- A. Topsoil: As specified in Section 31 2323.

#### **2.03 MULCH MATERIALS**

- A. Mulching Material: Oat or wheat straw, free from weeds, foreign matter detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.

#### **2.04 ACCESSORIES**

- A. Wrapping Materials: Burlap.
- B. Stakes: Softwood lumber, pointed end.
- C. Cable, Wire, Eye Bolts and Turnbuckles: Non-corrosive, of sufficient strength to withstand wind pressure and resulting movement of plant life.
- D. Plant Protectors: Rubber sleeves over cable to protect plant stems, trunks, and branches.
- E. Wrapping: Waterproof fabric.
- F. Tree Protectors: Metal with galvanized rings.

#### **2.05 TOP SOIL MIX**

- A. A uniform mixture of 1 part peat and 3 parts topsoil by volume.

#### **2.06 SOURCE QUALITY CONTROL**

- A. Provide analysis of topsoil; comply with requirements of Section 01 4000.
- B. Provide testing of imported topsoil.
- C. Testing is not required if recent tests are available for imported topsoil. Submit these test results to the testing laboratory for approval. Indicate, by test results, information necessary to determine suitability.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that prepared subsoil and planters are ready to receive work.
- B. Saturate soil with water to test drainage.

### **3.02 PREPARATION OF SUBSOIL**

- A. Prepare subsoil to eliminate uneven areas. Maintain profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated subsoil.
- C. Scarify subsoil to a depth of 3 inches where plants are to be placed. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted subsoil.
- D. Dig pits and beds 6 inches larger than plant root system.

### **3.03 PLACING TOPSOIL**

- A. Spread topsoil to the minimum depths indicated in the drawings. Rake smooth.
- B. Place topsoil during dry weather and on dry unfrozen subgrade.
- C. Remove vegetable matter and foreign non-organic material from topsoil while spreading.
- D. Grade topsoil to eliminate rough, low or soft areas, and to ensure positive drainage.
- E. Install topsoil into pits and beds intended for plant root balls, to a minimum thickness of 6 inches.

### **3.04 PLANTING**

- A. Place plants for best appearance for review and final orientation by Engineer.
- B. Set plants vertical.
- C. Remove non-biodegradable root containers.
- D. Set plants in pits or beds, partly filled with prepared plant mix, at a minimum depth of 6 inches under each plant. Remove burlap, ropes, and wires, from the root ball.
- E. Place bare root plant materials so roots lie in a natural position. Backfill soil mixture in 6 inch layers. Maintain plant life in vertical position.
- F. Saturate soil with water when the pit or bed is half full of topsoil and again when full.

### **3.05 FIELD QUALITY CONTROL**

- A. Perform field inspection and testing in accordance with Section 01 4000.
- B. Plants will be rejected if a ball of earth surrounding roots has been disturbed or damaged prior to or during planting.

### **3.06 MAINTENANCE**

- A. See Section 32 0190 - Operation and Maintenance of Planting for post-occupancy maintenance.

**END OF SECTION**