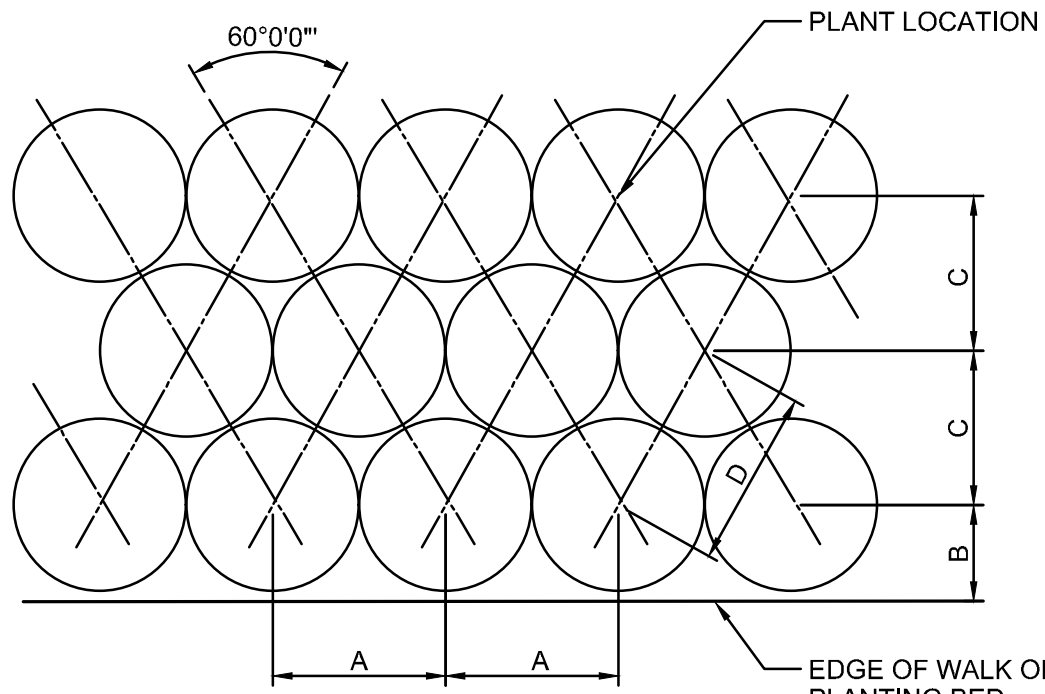
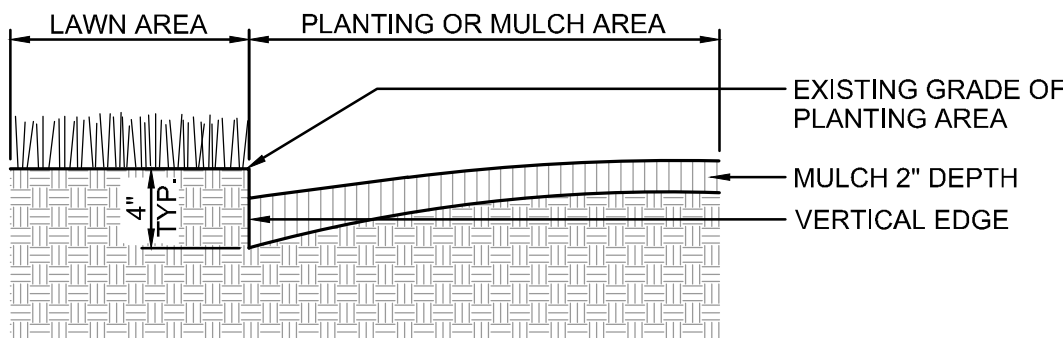


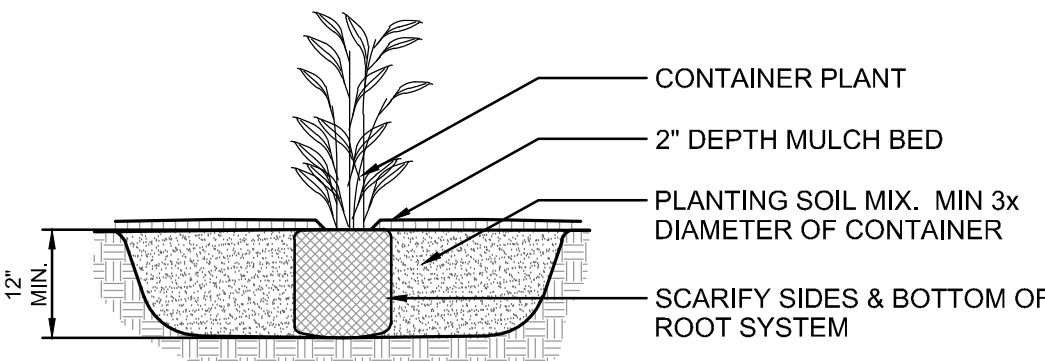
SPACING	A	B	C	D
12"	12"	6"	10"	12"
18"	18"	8"	15	18"
24"	24"	10"	20"	24"
30"	30"	15"	25"	30"
36"	36"	18"	31"	36"
48"	48"	21"	41"	48"



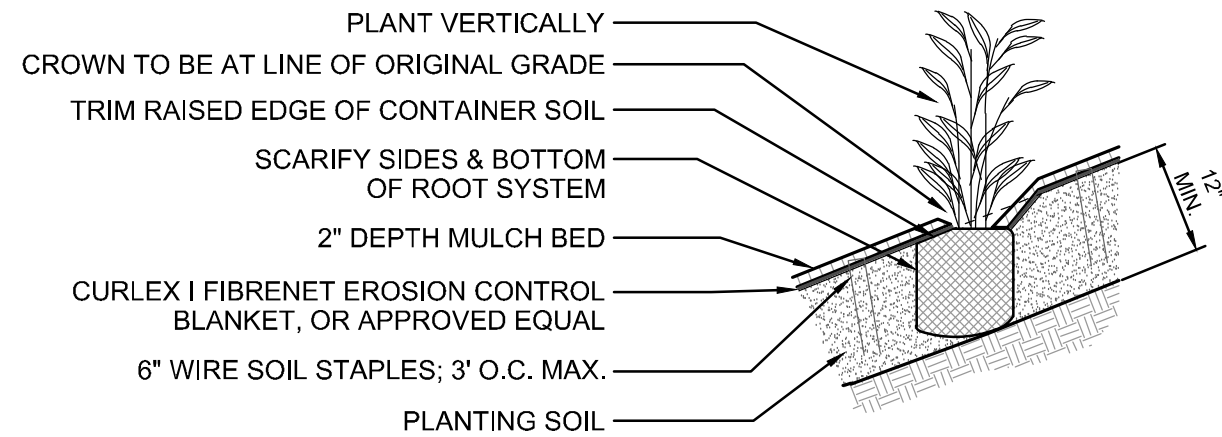
1 PLANT SPACING  
N.T.S.



2 PLANTING BED EDGING DETAIL  
N.T.S.

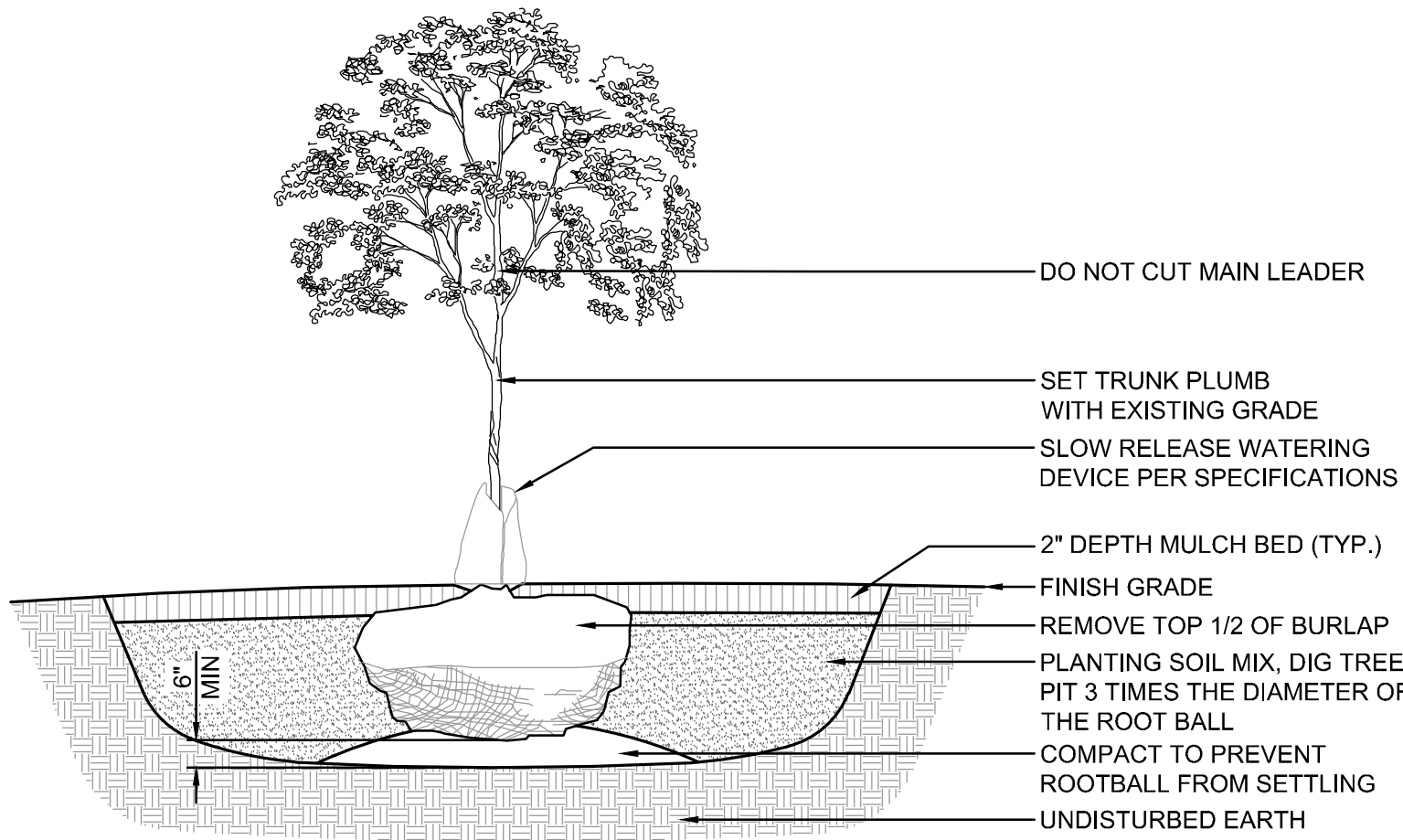


3 PERENNIAL & ORNAMENTAL GRASS PLANTING  
N.T.S.



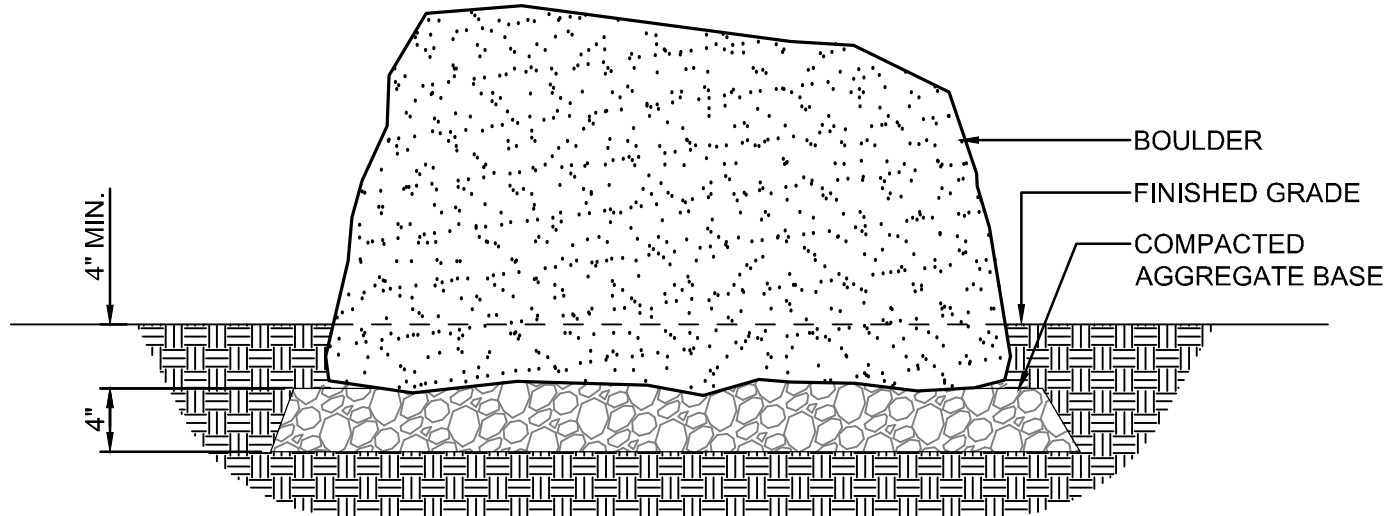
- NOTES:
- FOR USE ON SLOPES GREATER THAN 3:1
  - TILL IN 6" NEW PLANTING SOIL WITH EXISTING SOILS TO DEPTH OF 12"; TAMP OR WALK IN SOIL FIRM
  - CURLEX PRODUCT AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL
  - INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATIONS.
  - SLICE EROSION CONTROL BLANKET ONLY AS NEEDED TO ALLOW FOR PLANTING THROUGH EROSION CONTROL BLANKET.

4 PERENNIAL & ORNAMENTAL GRASS PLANTING ON SLOPE  
N.T.S.



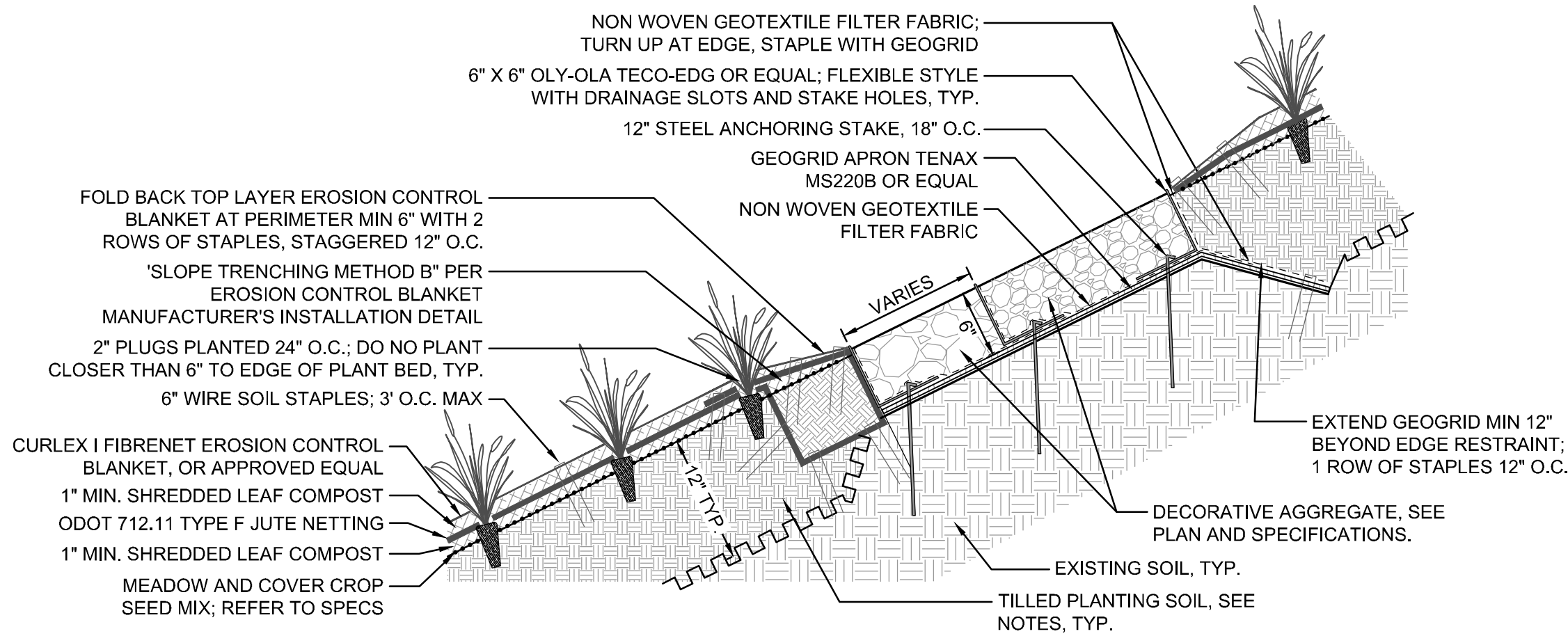
- NOTES:
- TOP OF ROOT BALL TO BE 2"-3" ABOVE ADJACENT FINISHED GRADE.
  - REMOVE ALL LABELS, TAGS, OR OTHER FOREIGN MATERIALS FROM LIMBS.
  - THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS DURING TRANSPLANTING. RETAIN NORMAL SHAPE OF TREE. OWNER'S REPRESENTATIVE WILL DETERMINE AMOUNT OF PRUNING NECESSARY. PLANT TREES AT SAME GRADE AS GROWN IN THE NURSERY.
  - DO NOT STAKE AND GUY TREES UNLESS NEEDED FOR STABILITY BASED ON SITE CONDITIONS OR A DIRECTED BY OWNER'S REPRESENTATIVE .
  - PROVIDE SLOW RELEASE WATERING DEVICE. ONE PER TREE. REFER TO SPECIFICATIONS.

5 DECIDUOUS TREE PLANTING WITH WATERING DEVICE  
N.T.S.



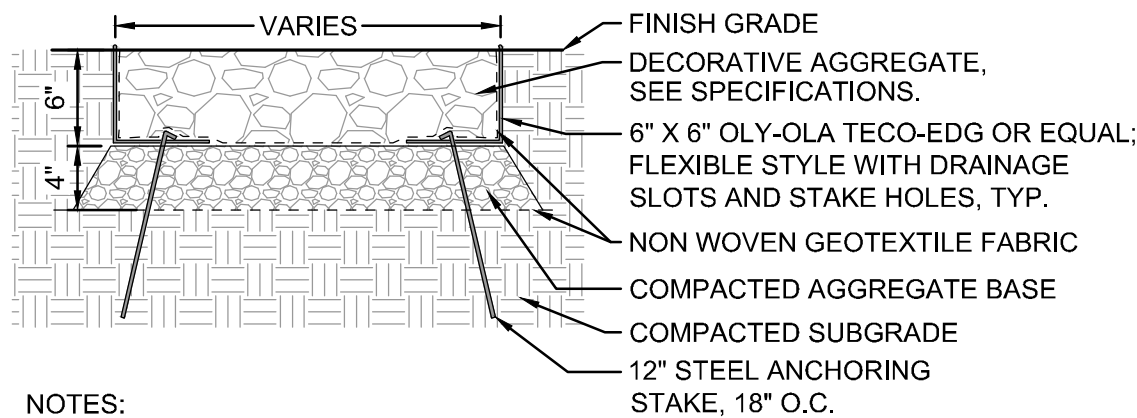
- NOTES:
- BOULDERS SHALL MATCH PHASE 1 BOULDERS IN MATERIALITY, SHAPE, AND SIZE.
  - BOULDERS SHALL BE LIMESTONE FROM LOCAL SUPPLIER.
  - BOULDER SIZE SHALL RANGE FROM 24" - 36".
  - SUBMIT PHOTOS OF BOULDER SAMPLES FOR APPROVAL.

6 LIMESTONE BOULDER  
N.T.S.



- NOTES:
- TILL IN 6" NEW PLANTING SOIL WITH EXISTING SOILS TO DEPTH OF 12"; TAMP OR WALK IN SOIL FIRM
  - CURLEX PRODUCTS AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY.
  - INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATIONS.
  - FOR PLANTED AREAS: SLICE EROSION CONTROL BLANKET PERPENDICULAR TO SLOPE ONLY AS NEEDED TO ALLOW FOR PLANTING THROUGH EROSION CONTROL BLANKET.
  - INSTALL EDGING 1/2" ABOVE FINISH GRADE; CONNECT 10' LENGTHS WITH H-CLIPS AND PVC GLUE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS
  - GEOTEXTILE FABRIC TO TURN UP AGAINST EDGING AT LOW SIDE OF GRAVEL BED; EXTEND FABRIC UNDER EDGING AT HIGH SIDE OF GRAVEL BED.

7 DECORATIVE AGGREGATE AND MEADOW PLANTING WITH EDGING ON SLOPE  
N.T.S.

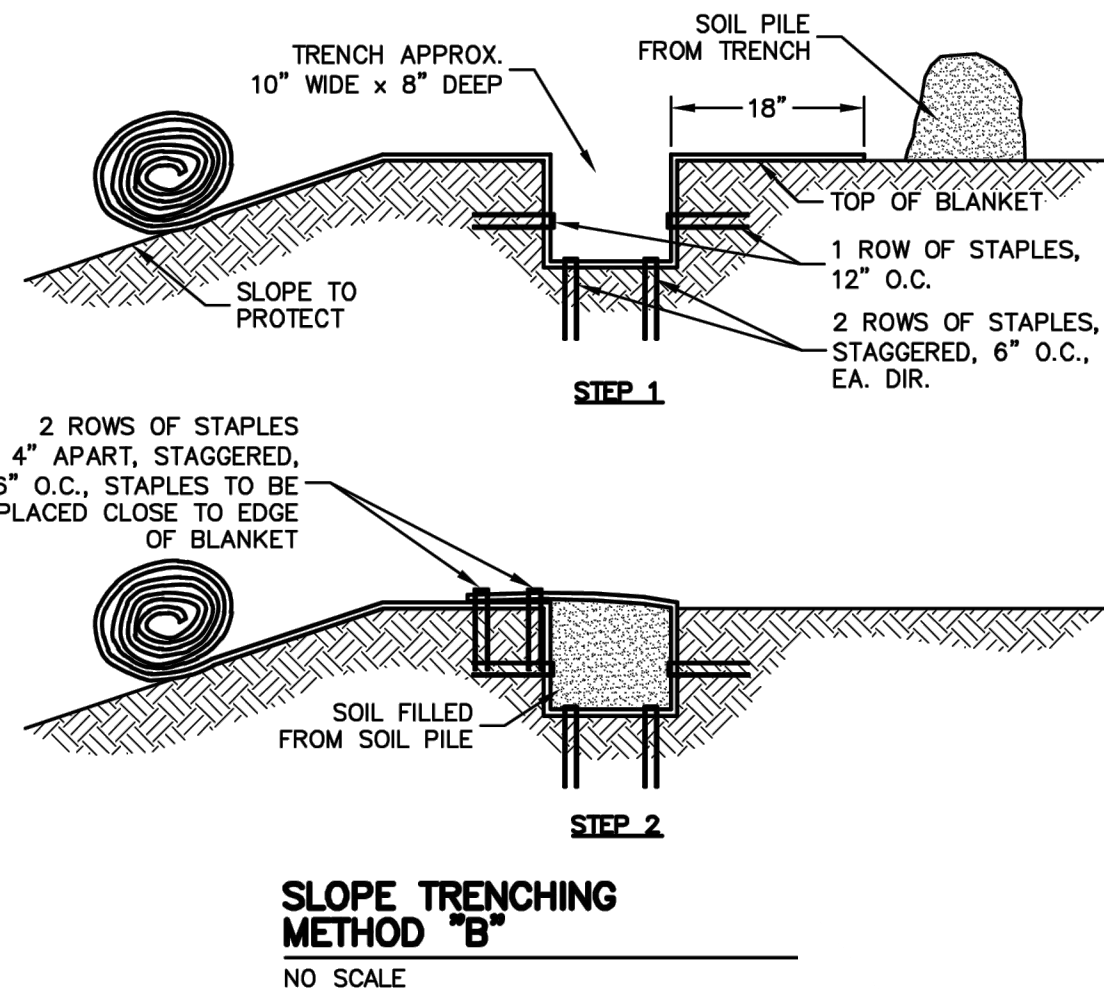


- NOTES:
- FOR USE ON SLOPES LESS THAN 4:1
  - INSTALLATION TO BE COMPLETED PER MANUFACTURER'S SPECIFICATIONS.

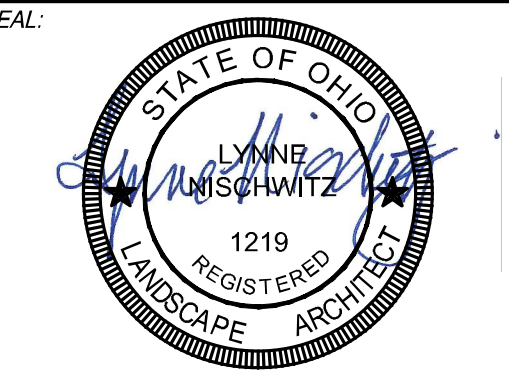
8 DECORATIVE AGGREGATE  
N.T.S.

- GENERAL NOTES
- EACH CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES.
  - SUBSURFACE IMPROVEMENTS SHALL BE OBSERVED. THE CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) 48 HOURS PRIOR TO ANY EXCAVATION OR DIGGING TO ENSURE THE LOCATION OF UNDERGROUND UTILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT SUCH UNDERGROUND UTILITIES.
  - ALL CONCRETE FORMS SHALL BE FIELD STAKED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO CONCRETE INSTALLATION.
  - ALL HORIZONTAL AND VERTICAL LAYOUT SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE TO ENSURE GENERAL CONFORMANCE PRIOR TO CONSTRUCTION.
  - PROVIDE AN ISOLATION JOINT WHERE CONCRETE PAVING ABUTS BUILDINGS, COLUMNS, AND STRUCTURES. VERIFY COLOR OF SEALANT WITH OWNER'S REPRESENTATIVE.
  - CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, AREA DISCREPANCIES AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATIONS.
  - CONTRACTOR SHALL BE RESPONSIBLE TO CONSULT WITH SITE SUPERINTENDENT, APPROPRIATE AGENCIES, AND PLANS FOR LOCATION OF ALL UNDERGROUND UTILITIES, PIPES, AND STRUCTURES.
  - CONTRACTOR TO REPORT TO ENGINEER ANY ADDITIONAL UTILITY LINES FOUND DURING CONSTRUCTION.

- PLANTING NOTES
- CONTRACTOR SHALL VERIFY ALL PLANTING CONDITIONS FOR OBSTRUCTIONS, EXISTING TREE CANOPY COVERAGE, AND OVERHEAD ELECTRICAL POWER LINES PRIOR TO PLANTING. IF ADVERSE PLANTING CONDITIONS ARE OBSERVED, CONTACT THE OWNERS REPRESENTATIVE IMMEDIATELY.
  - ALL SHRUB MASSES TO BE INCORPORATED BY A CONTINUOUS MULCH BED TO LIMITS SHOWN AND AS SPECIFIED. MULCH BEDS TO HAVE A NEAT, EDGED APPEARANCE.
  - ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE FINE GRADED AND SEEDED.
  - ALL TREES WITHIN A SPECIES SHALL HAVE MATCHING FORM.
  - THE CONTRACTOR SHALL ENSURE THAT ALL NEWLY PLANTED TREES ARE PERFECTLY ALIGNED AND SET PLUMB WITH PROPER RELATIONSHIP TO THE SURROUNDING GRADE. CONFIRM FINISHED GRADE PRIOR TO PLANTING.
  - ALL PLANT MATERIAL SHALL BE OF THE SIZE AND TYPE SPECIFIED. IF SUBSTITUTIONS ARE APPROVED BY THE OWNER'S REPRESENTATIVE, THE SIZE AND GRADING STANDARDS SHALL CONFORM TO THOSE OF AMERICANHORT.
  - PRIOR TO ORDERING PLANT MATERIAL, THE CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE PLAN, LABELS, AND PLANT SCHEDULE.



NOTE:  
UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF AVAILABLE RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES AND MAY NOT BE INCLUSIVE. PRECISE LOCATIONS AND THE EXISTENCE OR NON EXISTENCE OF UNDERGROUND UTILITIES CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.



NO.	DATE	DESCRIPTION
1	06.30.2025	100% CD BID SET

## DEERFIELD TWP STREETSCAPE - HILLSLOPE + I-71 SOUTH EXIT RAMP DEERFIELD TOWNSHIP, OHIO

PROJECT NO: 230146.002

DATE: 06.30.2025

SCALE:

SHEET NAME:

## LANDSCAPE DETAILS

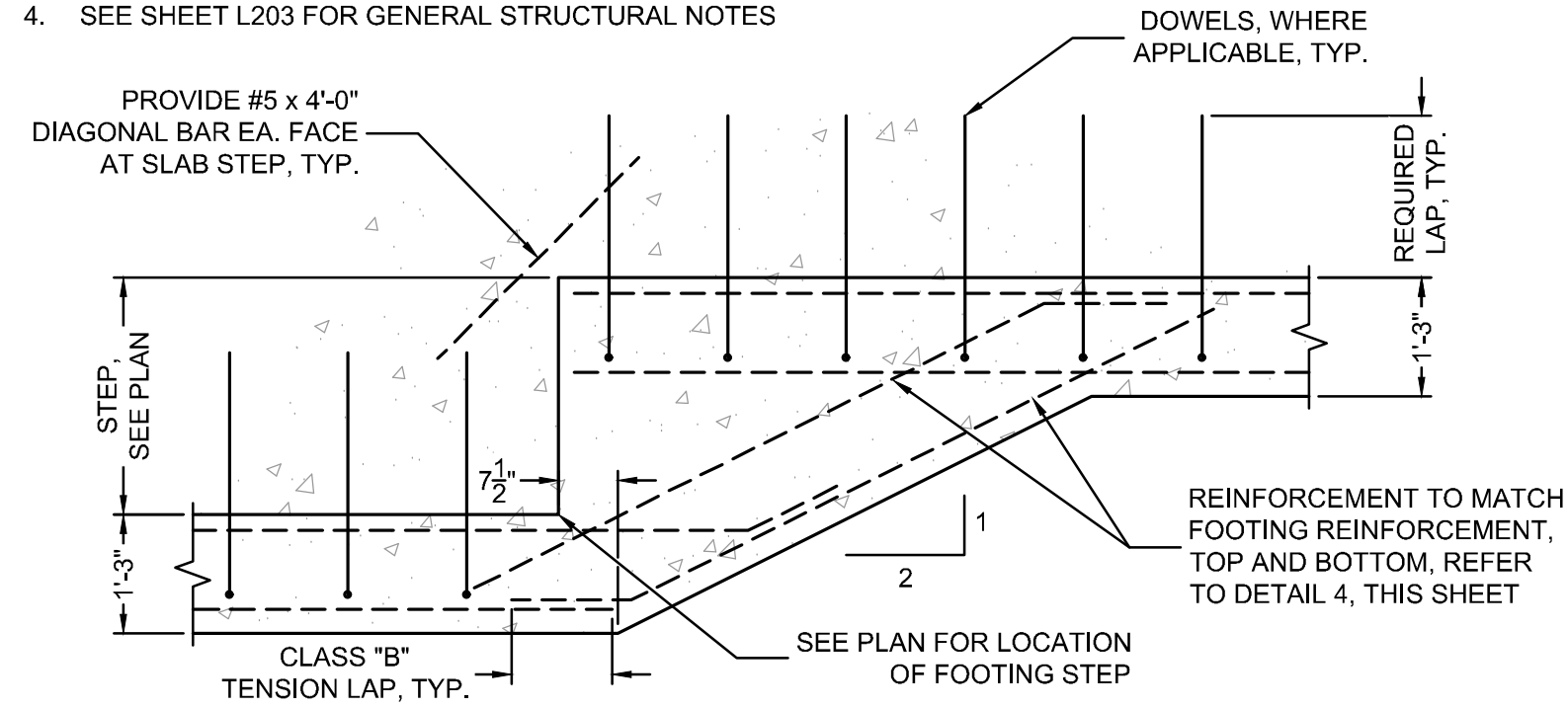
SHEET NO.

# L200



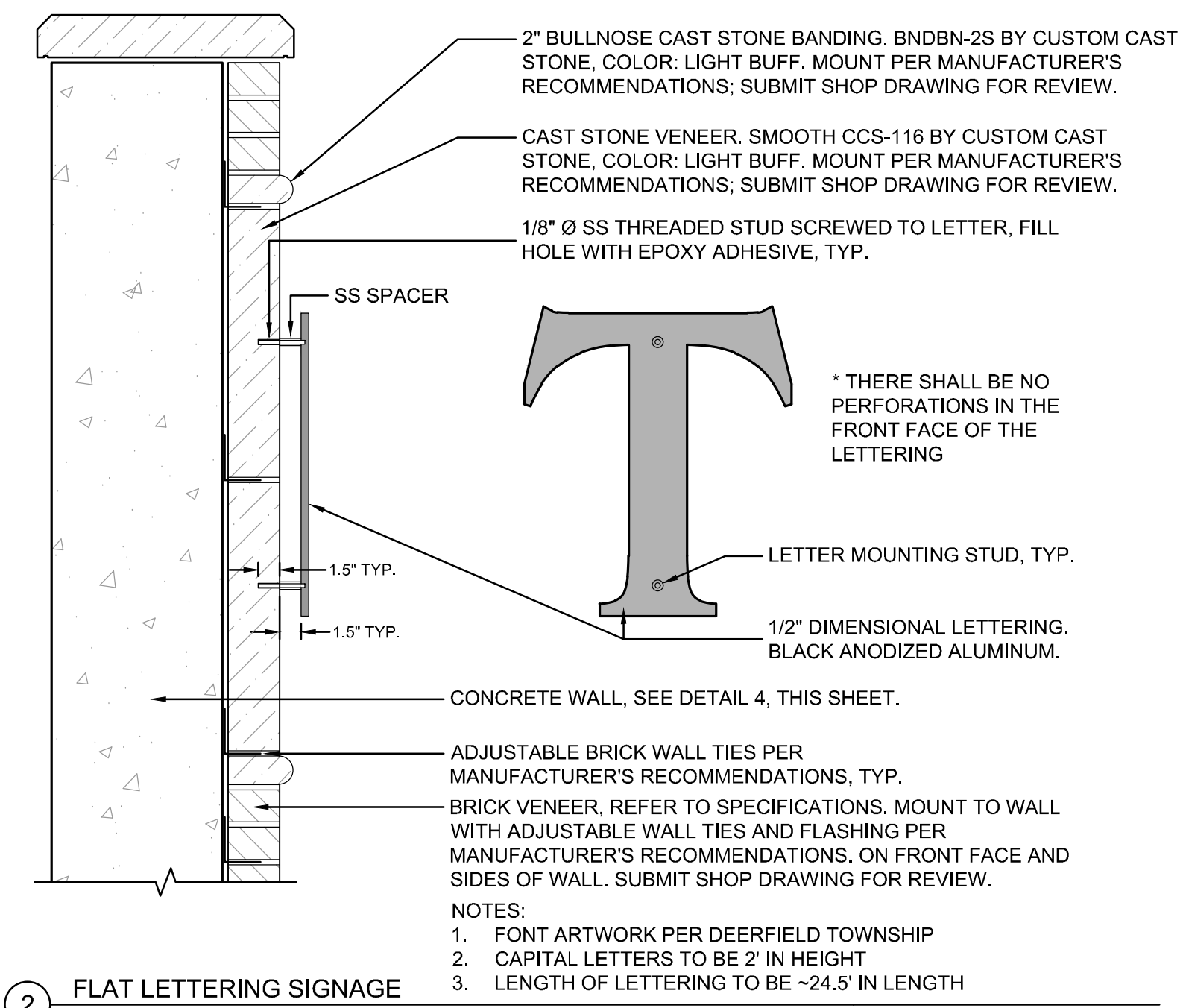
**WALL NOTES:**

1. CONTRACTOR TO STAKE WALL LOCATION FOR APPROVAL PRIOR TO FOOTING EXCAVATION.
2. COMPACT THE SUBGRADE BELOW THE FOOTINGS.
3. BACKFILL IN EQUAL LIFTS EACH SIDE, DIFFERENCE NOT TO EXCEED 2' - 0"
4. SEE SHEET L203 FOR GENERAL STRUCTURAL NOTES

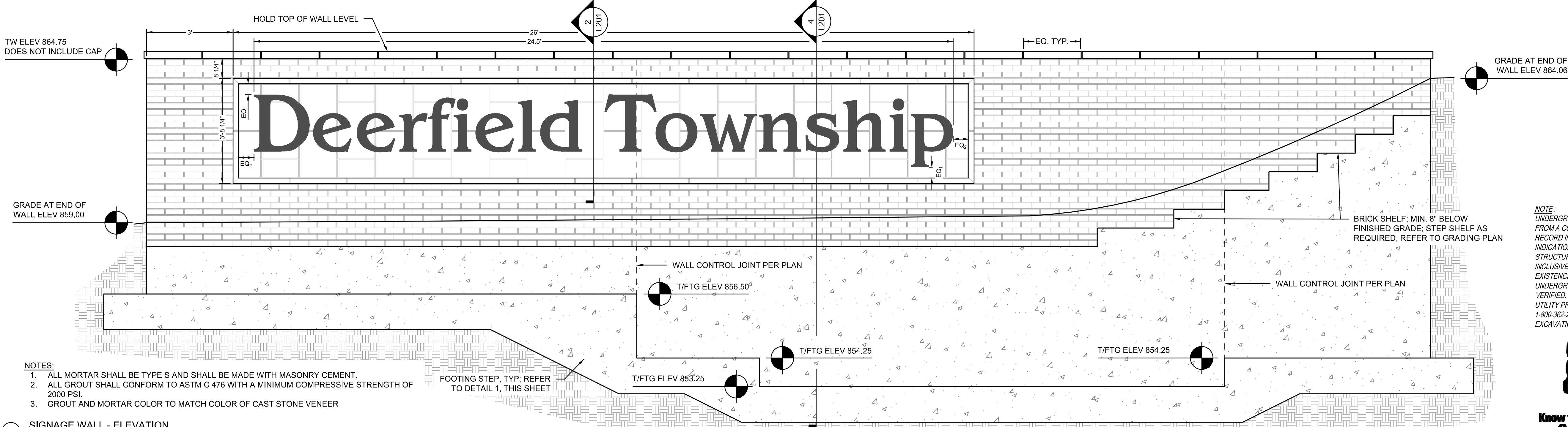


1 TYPICAL FOOTING STEP  
1/2" = 1' - 0"

REFER TO STRUCTURAL NOTES, SHEET L203



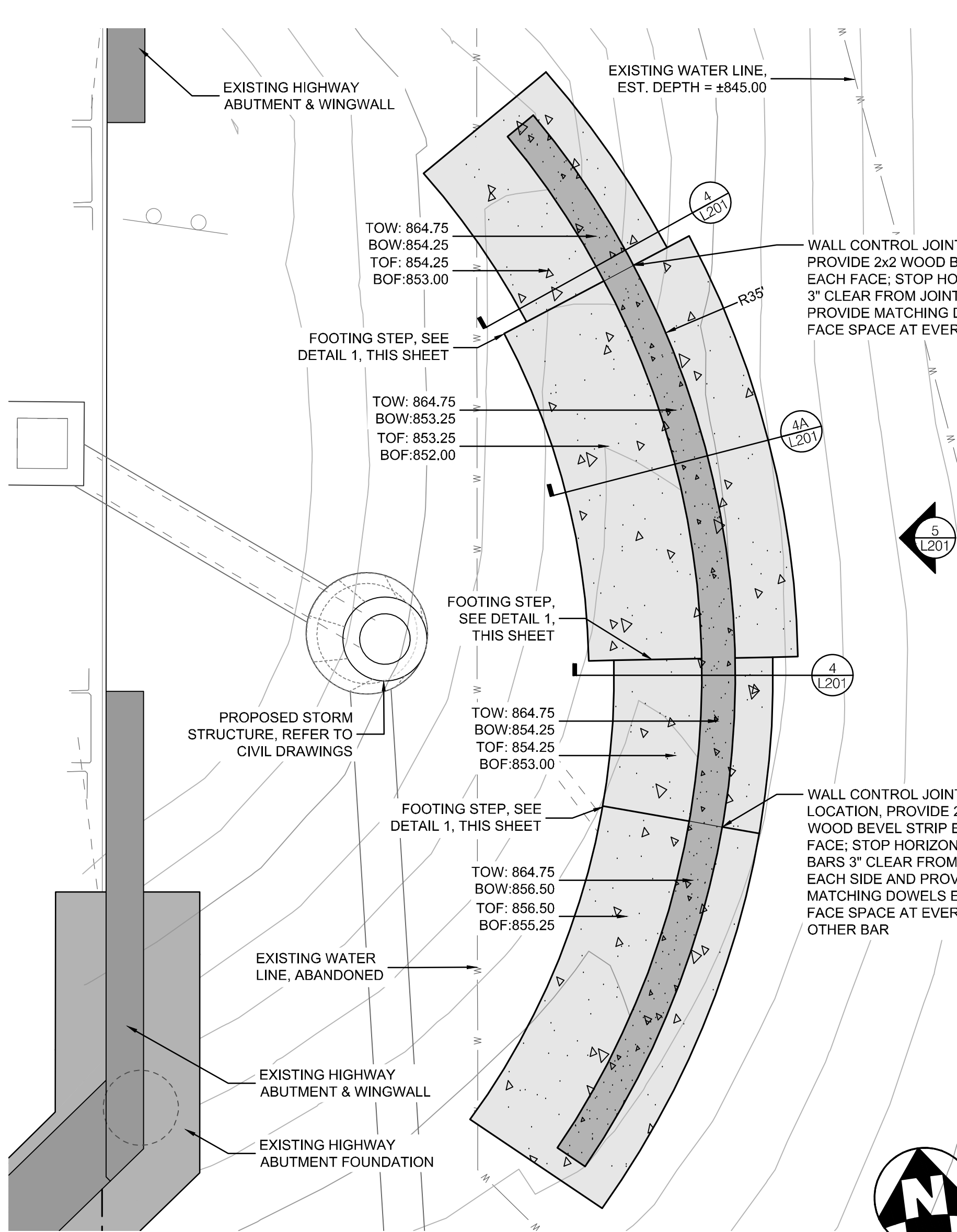
2 FLAT LETTERING SIGNAGE  
NTS



**NOTES:**

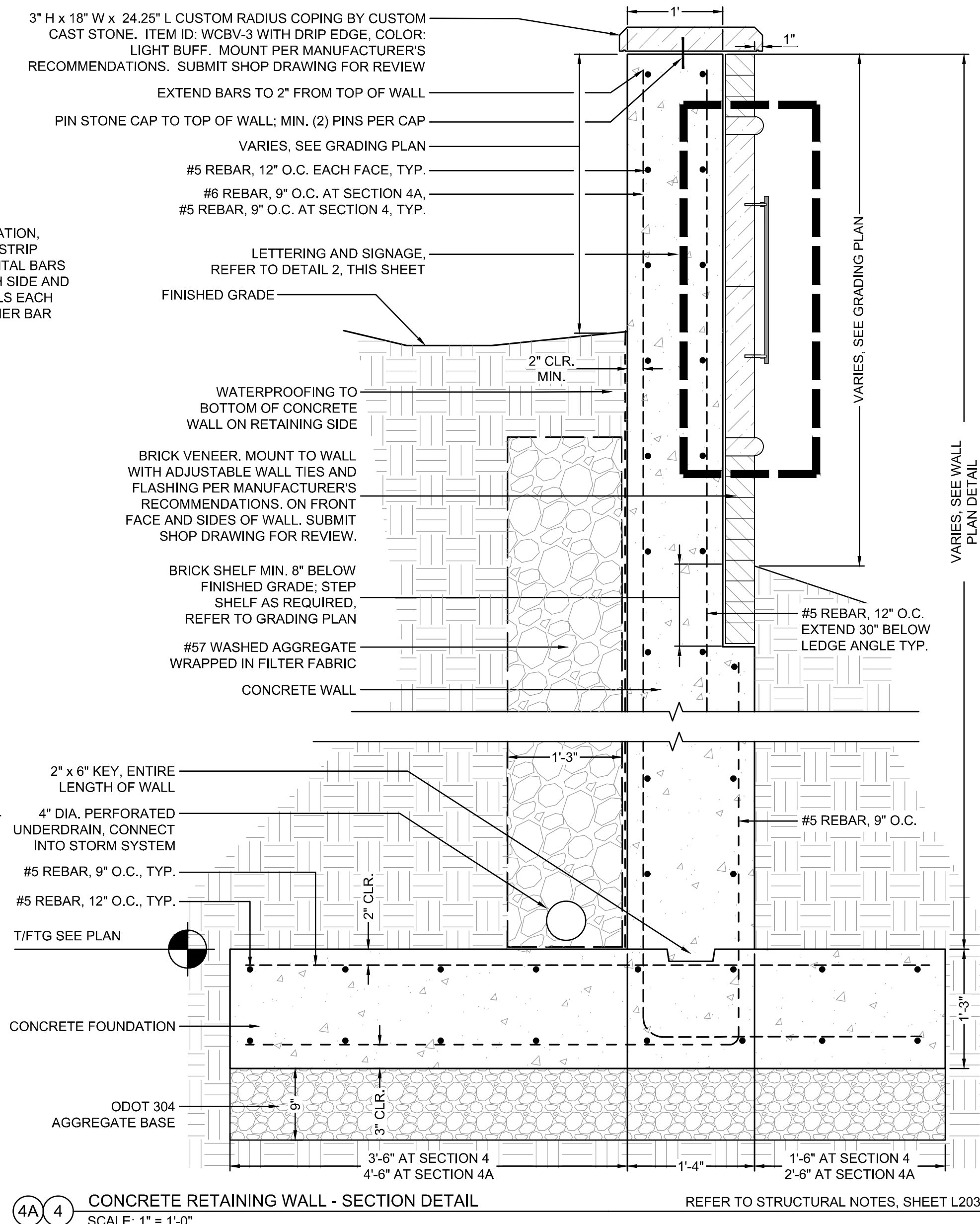
1. ALL MORTAR SHALL BE TYPE S AND SHALL BE MADE WITH MASONRY CEMENT.
2. ALL GROUT SHALL CONFORM TO ASTM C 476 WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
3. GROUT AND MORTAR COLOR TO MATCH COLOR OF CAST STONE VENEER

5 SIGNAGE WALL - ELEVATION  
1/2" = 1' - 0"



3 CONCRETE RETAINING WALL - PLAN ENLARGEMENT  
1/4" = 1' - 0"

REFER TO STRUCTURAL NOTES, SHEET L203



4A 4 CONCRETE RETAINING WALL - SECTION DETAIL  
SCALE: 1" = 1' - 0"

REFER TO STRUCTURAL NOTES, SHEET L203

**NOTE:**  
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**THE KLEINGERS GROUP**  
CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE  
www.kleingers.com  
6219 Centre Park Dr.  
West Chester, OH 45069  
513.779.7851

**Deerfield Township**  
EST. 1803  
  
**JULIE CROMWELL & ASSOCIATES, LLC**  
7140 Miami Ave., Suite 100  
Cincinnati, Ohio 45243  
(513) 321.2555  
www.juliecromwell.com

SEAL:  
  
STAMP COVERS ALL STRUCTURAL CONCRETE WORK

NO.	DATE	DESCRIPTION
1	06.26.2025	100% CD BID SET

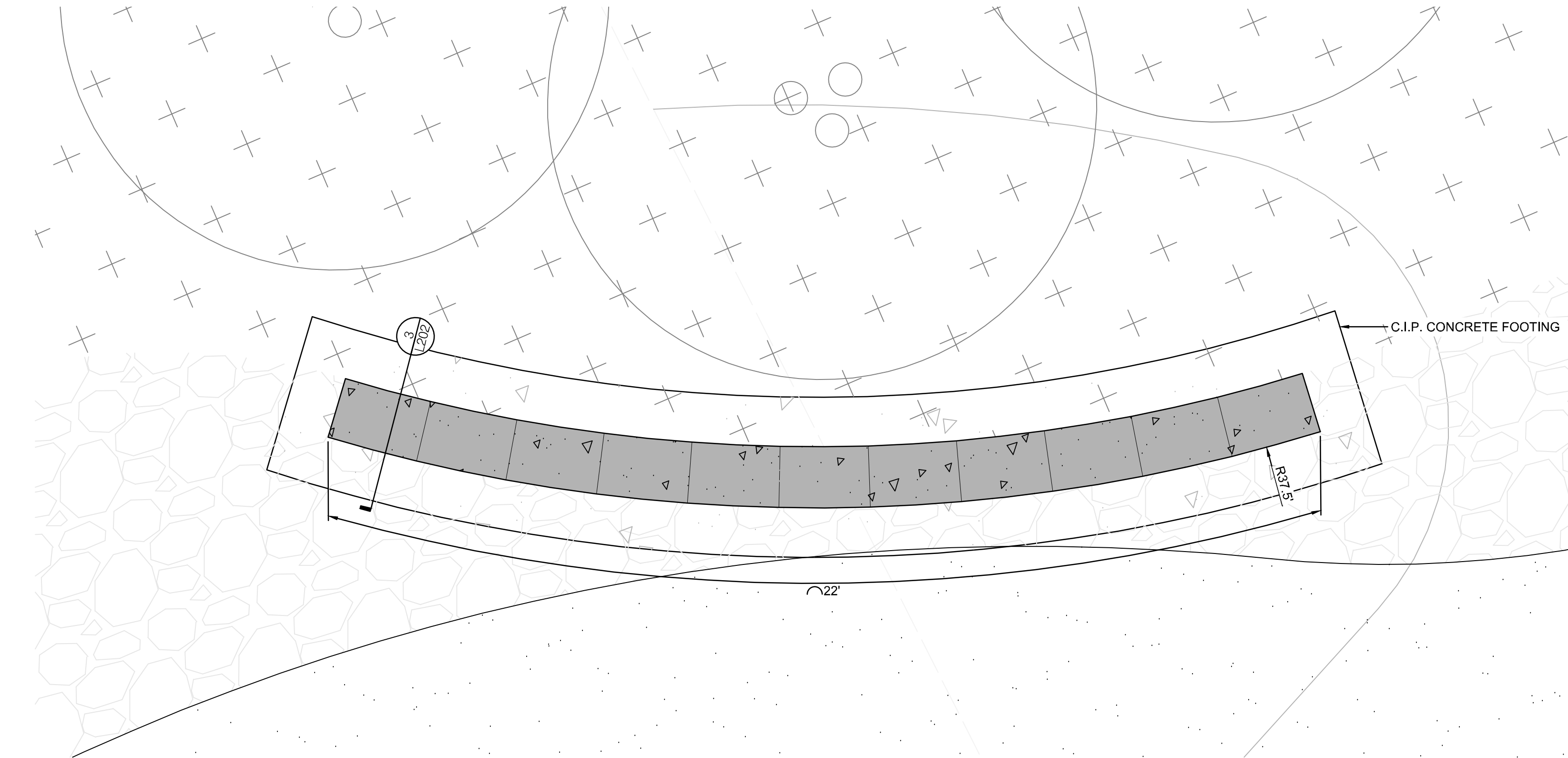
**DEERFIELD TWP  
STREETSCAPE -  
HILLSLOPE + I-71  
SOUTH EXIT RAMP**  
DEERFIELD TOWNSHIP, OHIO

PROJECT NO: 230146.002  
DATE: 06.30.2025  
SCALE:

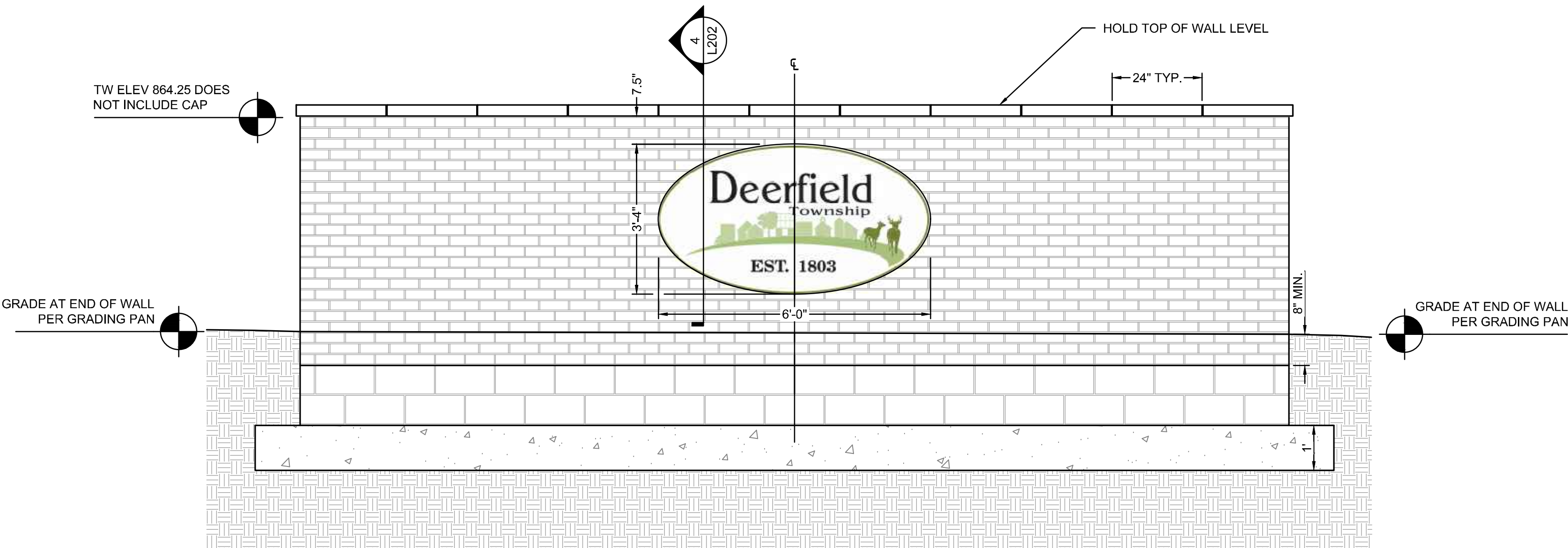
SHEET NAME:  
**WALL DETAILS -  
HILLSLOPE**

SHEET NO.  
**L201**

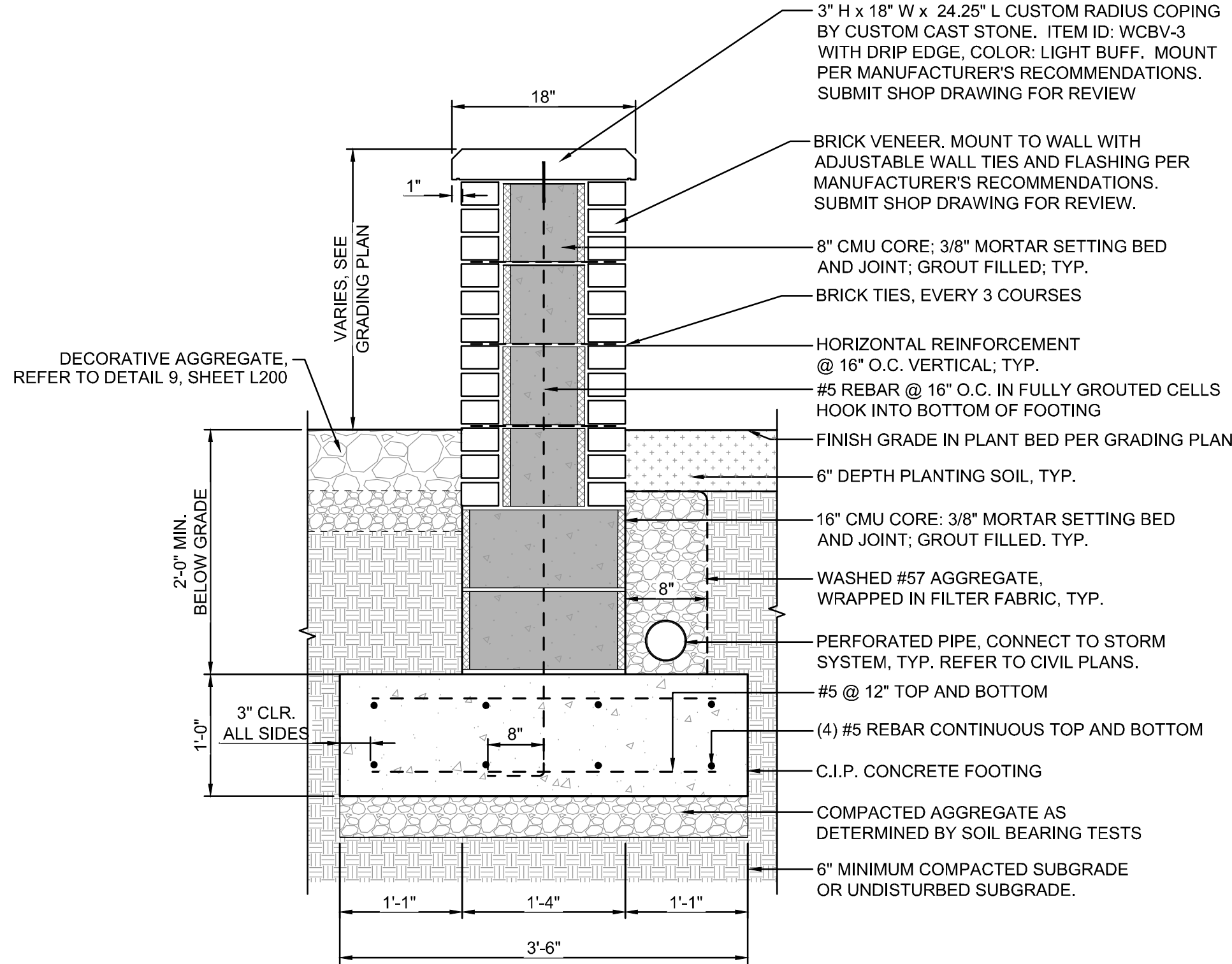




1 SIGNAGE WALL - PLAN ENLARGEMENT  
1/2" = 1'-0"

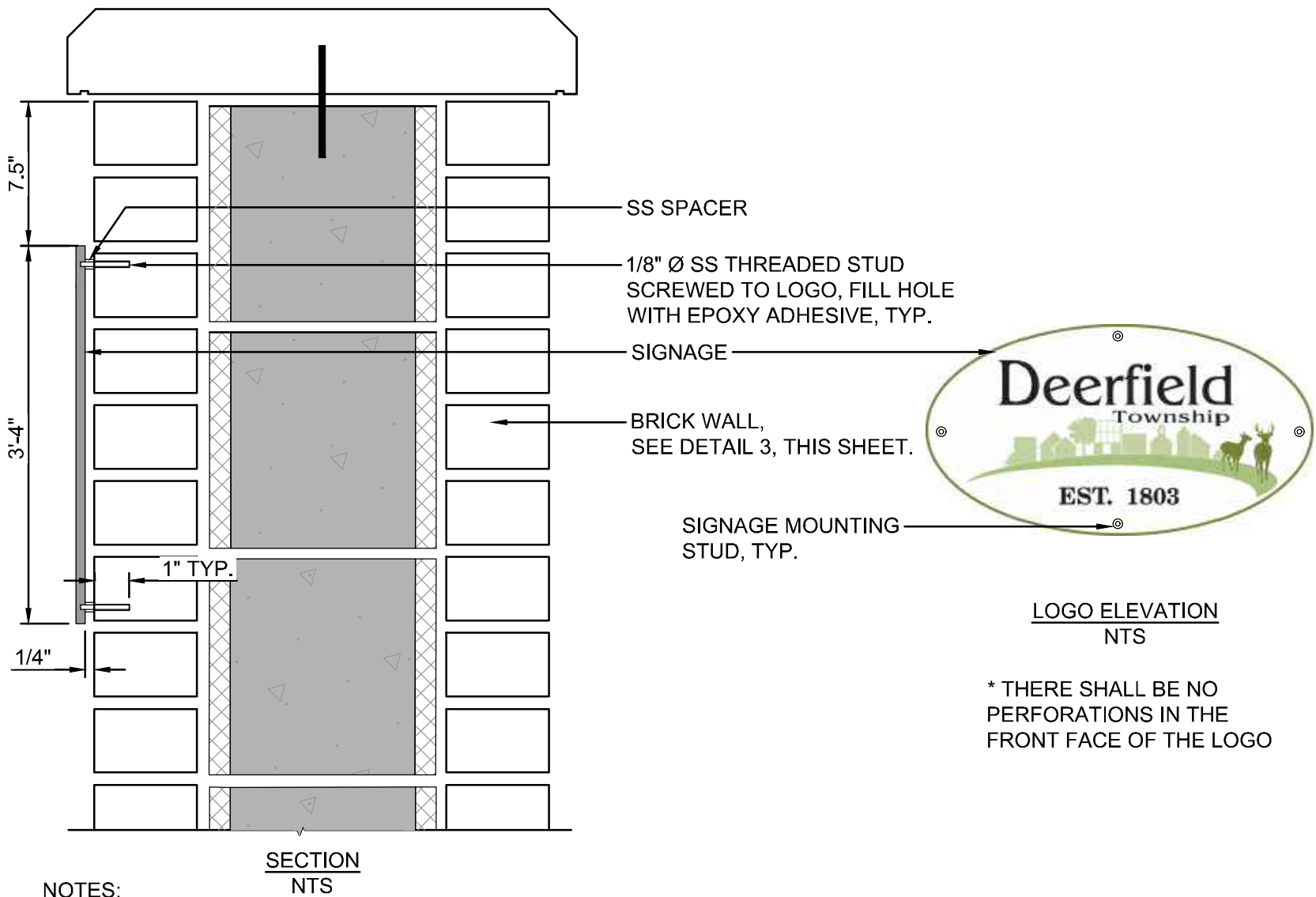


2 SIGNAGE WALL - ELEVATION  
1/2" = 1'-0"



- WALL NOTES:**
1. CONTRACTOR TO STAKE WALL LOCATION FOR APPROVAL PRIOR TO FOOTING EXCAVATION.
  2. COMPACT THE SUBGRADE BELOW THE FOOTINGS.
  3. SEE SHEET L203 FOR GENERAL STRUCTURAL NOTES

3 SIGNAGE WALL - SECTION  
N.T.S.



- NOTES:**
1. SIGNAGE ELEMENT TO BE PROVIDED BY FAST SIGNS, (513) 334-0240. COORDINATE SIGN TYPE, LOGO, MATERIALS WITH OWNER. CONTRACTOR TO PROVIDE SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO ORDERING SIGNS. PROVIDE NEOPRENE WASHERS TO ISOLATE DISSIMILAR METALS BETWEEN ANCHORS AND SIGN IF APPLICABLE.
  2. SIGNAGE ELEMENT SHALL MATCH THE FINALIZED VERSION OF INSTALLED SIGN FROM PHASE 1

4 FLAT LOGO SIGNAGE  
NTS

NOTE:  
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SEAL:



NO.	DATE	DESCRIPTION
1	06.26.2025	100% CD BID SET

**DEERFIELD TWP  
STREETSCAPE -  
HILLSLOPE + I-71  
SOUTH EXIT RAMP**  
DEERFIELD TOWNSHIP, OHIO

PROJECT NO:	230146.002
DATE:	06.30.2025

SCALE:

SHEET NAME:

**WALL DETAILS -  
EXIT RAMP**

SHEET NO.

**L202**



GENERAL STRUCTURAL NOTES

CODES AND SPECIFICATIONS

- 1. 2024 OHIO BUILDING CODE (REFERENCES IBC 2021)
- 2. 2024 OHIO EXISTING BUILDING CODE (REFERENCES IEBC 2021)
- 3. ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- 4. ACI 301-16 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
- 5. ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- 6. TMS 402-16 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
- 7. TMS 602-16 SPECIFICATION FOR MASONRY STRUCTURES

DESIGN LOADS

- 1. DEAD LOAD SELF WEIGHT
- 2. SNOW LOAD
  - a. GROUND SNOW LOAD Pg = 20 PSF
  - b. RISK CATEGORY II
  - c. IMPORTANCE FACTOR Is = 1.0
  - d. EXPOSURE FACTOR Ce = 1.0
  - e. THERMAL FACTOR Ct = 1.0
  - f. FLAT ROOF SNOW LOAD Pf = 14 PSF
  - g. MINIMUM SNOW LOAD Pm = 20 PSF
  - h. SNOW DRIFT
  - i. SNOW DRIFT SHALL BE COMBINED WITH FLAT ROOF SNOW LOAD
  - ii. REFER TO ROOF FRAMING PLANS FOR LOCATIONS AND DIAGRAM.
- 3. WIND LOAD
  - a. BASIC WIND SPEED (3-SECOND GUST): V<sub>ULT</sub> = 106 MPH; V<sub>ASD</sub> = 82 MPH
  - b. RISK CATEGORY: II
  - c. IMPORTANCE FACTOR: Iw = 1.00
  - d. EXPOSURE CATEGORY: C
  - e. INTERNAL PRESSURE COEFFICIENTS: GCpi = ± 0.18
- 4. SEISMIC LOAD
  - a. SOIL SITE CLASS D
  - b. RISK CATEGORY II
  - c. IMPORTANCE FACTOR Ie = 1.0
  - d. MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD Ss = 0.140g
  - e. MAPPED SPECTRAL RESPONSE ACCELERATION AT 1 SEC PERIOD S1 = 0.074g
  - f. SPECTRAL RESPONSE COEFFICIENT SDS = 0.149g
  - g. SPECTRAL RESPONSE COEFFICIENT SD1 = 0.118g
  - h. SEISMIC DESIGN CATEGORY B
  - i. ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE

FOUNDATIONS

- 1. THE FOUNDATION DESIGN IS BASED UPON A 2,500 PSF MINIMUM BEARING REQUIREMENT BASED ON THE OHIO BUILDING CODE.
- 2. THE BEARING REQUIREMENT MUST BE VERIFIED BY A GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION. SOILS UNSUITABLE FOR SUPPORTING THE FOUNDATIONS ARE TO BE REMOVED AND BACKFILLED AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
  - a. SHALLOW FOUNDATIONS SHALL BEAR ON LEVEL (WITHIN 1 AND 12) UNDISTURBED SOIL OR APPROVED ENGINEERED FILL.
  - b. UNSUITABLE OR SOFT SOILS SHALL BE OVER-EXCAVATED AND REPLACED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORT.
- 3. FOUNDATION ELEVATIONS SHOWN ARE FOR BIDDING PURPOSES AND MAY VARY TO SUIT SUB-SURFACE SOIL CONDITIONS. ELEVATION AND BEARING STRATA SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR LOW STRENGTH CONCRETE (1500 PSI) UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. BOTTOM OF FOUNDATIONS SHALL BEAR MINIMUM OF 2'-6" BELOW GRADE.
- 4. ALL FOUNDATIONS ARE TO BE POURED NEAT - WITHOUT FORMS. WHERE EARTH CUTS WILL NOT STAND, FOUNDATION SIDES MUST BE FORMED, AND BACKFILLED AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- 5. CONTRACTOR SHALL CONTACT UTILITY COMPANIES PRIOR TO EXCAVATION TO LOCATE UNDERGROUND SERVICES. CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND SUPPORTING UNDERGROUND UTILITIES.

CAST-IN-PLACE CONCRETE

- 1. CONCRETE MIX DESIGN(S):
  - STRENGTH (AT 28 DAYS) MIN. CEMENT W/CM RATIO AIR% AGGREGATE SIZE
  - a. FOOTINGS 3,000 PSI 480 LB/CY 0.55 0% No. 57, 1-INCH
  - b. WALLS 4,500 PSI 565 LB/CY 0.45 6% +/- 1.5% No. 57, 1-INCH
- 1. SUBMIT PROPOSED MIX DESIGN FOR APPROVAL.
- 2. MAXIMUM LENGTH OF WALL POUR BETWEEN CONSTRUCTION JOINTS TO NOT EXCEED 100 FT.
- 3. JOINTS NOT INDICATED ON THE STRUCTURAL DRAWINGS ARE NOT PERMITTED UNLESS APPROVED BY THE STRUCTURAL ENGINEER. CONTRACTOR SHALL SUBMIT A JOINT PLAN FOR REVIEW AND APPROVAL.
- 4. PROVIDE 3/4" BEVEL AT CORNERS OF ALL EXPOSED EDGES.
- 5. PLACE NO OPENINGS, SLEEVES, INSERTS, ETC. IN THE CONCRETE UNLESS SIZE AND LOCATION IS APPROVED BY THE STRUCTURAL ENGINEER.
- 6. PLACE NO PERMANENT LOAD ON CONCRETE UNTIL IT HAS REACHED ITS DESIGN COMPRESSIVE STRENGTH AND IS A MINIMUM OF THREE (3) DAYS OLD.
- 7. CONCRETE CONSTRUCTION TOLERANCES PER THE PROJECT SPECIFICATIONS.

REINFORCING

- 1. ALL REINFORCING TO HAVE MINIMUM Fy = 60 KSI.
- 2. PROVIDE MINIMUM CLEARANCE BETWEEN REINFORCING STEEL AND CONCRETE SURFACES AS SHOWN. IF NOT SHOWN, PROVIDE CLEAR COVER PER ACI. PLACE ALL REINFORCING AS SHOWN AND DETAILED, AND WITHIN ACI TOLERANCE.

CONCRETE MASONRY

- 1. ALL MASONRY WORK SHALL CONFORM TO ACI 530.1 "SPECIFICATIONS FOR MASONRY STRUCTURES"
- 2. CMU DESIGN CRITERIA:
  - a. MATERIAL STRENGTH: 2,800 PSI (NET AREA), f<sub>m</sub> ≈ 2,000 PSI 2 CELL HOLLOW UNITS, NORMAL WEIGHT
  - b. GROUT: 3,000 PSI WITH 3/8" AGGREGATE AND 6"-8" SLUMP TYPE S
  - c. MORTAR:
  - d. REINFORCEMENT:
    - i. ALL REINFORCEMENT SHALL BE IN GROUTED CORES OR JOINTS
    - ii. VERTICAL: (1) - #5 BAR AT 32" O.C. MIN (1) - #5 ALL CORNERS AND BOTH SIDES OF OPENINGS, MIN.
    - iii. HORIZONTAL: 9 GAGE, GALVANIZED LADDER TYPE DURAWALL AT 16" O.C. MAX. Fy = 60,000 PSI
    - iv. YIELD STRENGTH:
- 3. DOWELS INTO MASONRY WALLS FROM FOUNDATION TO BE PROVIDED AND INSTALLED BY THE FOUNDATION CONTRACTOR. IT IS RECOMMENDED THAT THE MASONRY CONTRACTOR REVIEW DOWEL LAYOUT AND PLACEMENT PRIOR TO CASTING OF CONCRETE FOUNDATIONS.
- 4. REFER TO DRAWINGS FOR CONTROL JOINT SPACING AND LAYOUT. JOINTS RECOMMENDED AT THE FOLLOWING LOCATIONS (AT A MINIMUM):
  - a. BOTH SIDES OF WALL OPENINGS
  - b. RATIO OF 3:1 FOR PANEL LENGTH TO HEIGHT (L/H), WHERE 'L' IS NOT TO EXCEED 50'-0".

POST-INSTALLED AND ADHESIVE ANCHORS TO CONCRETE

- 1. ANCHORS AND ADHESIVE ANCHORING SYSTEM MUST BE TESTED AND APPROVED USING ICC EVALUATION SERVICE ACCEPTANCE CRITERIA, INCLUDING ICC-ES AC193 "MECHANICAL ANCHORS IN CONCRETE ELEMENTS" OR ICC-ES AC308 " POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS." CONCRETE SHALL BE CONSIDERED CRACKED. SUBMIT MANUFACTURER'S DATA AND EVALUATION REPORT (ESR) FOR PROPOSED ANCHORS, ADHESIVES, AND ANCHORING SYSTEMS. INDICATE SPECIFIC PROJECT LOCATIONS AND CONDITIONS WHERE PROPOSED FOR EACH USE.
- 1. MECHANICAL ANCHORS TO CONCRETE SHALL BE AS SHOWN IN THE STRUCTURAL DETAILS. USE ONE OF THE FOLLOWING, UNLESS NOTED OTHERWISE:
  - a. HILTI KWIK BOLT TZ EXPANSION ANCHORS.
  - b. DEWALT POWER-STUD+ SD2 WEDGE EXPANSION ANCHORS.
  - c. DEWALT SCREW-BOLT+ SCREW ANCHORS.
  - d. SIMPSON STRONG-BOLT 2 WEDGE ANCHORS.
  - e. SIMPSON TITEN-HD SCREW ANCHORS.
- 2. ADHESIVE ANCHORING OF RODS AND REBAR TO CONCRETE SHALL BE AS SHOWN IN THE STRUCTURAL DETAILS. USE ONE OF THE FOLLOWING, UNLESS NOTED OTHERWISE:
  - a. HILTI HIT-HY 200 HYBRID ADHESIVE ANCHORING SYSTEM.
  - b. HILTI HIT-RE 500-SD EPOXY ADHESIVE ANCHORING SYSTEM.
  - c. DEWALT AC208+ ADHESIVE ANCHORING SYSTEM.
  - d. DEWALT PURE110+ OR PE1000+ EPOXY ADHESIVE ANCHORING SYSTEM.
  - e. SIMPSON SET-XP EPOXY ANCHORING SYSTEM.
- 3. ADHESIVE ANCHORING SHALL NOT BE USED IN OVERHEAD CONDITIONS. USE HYBRID ADHESIVES FOR HORIZONTAL CONDITIONS.
- 4. POST-INSTALLED ANCHORS SHALL ONLY BE USED AS SHOWN AND APPROVED. THEY SHALL NOT BE USED WHERE CAST-IN-PLACE ANCHORS ARE REQUIRED.
- 5. ZINC COAT ANCHORS, RODS, AND HARDWARE TYPICALLY. FOR EXTERIOR APPLICATIONS. USE GALVANIZED, SHERARDIZED, OR STAINLESS STEEL, UNLESS NOTED OTHERWISE.
- 6. EMBEDMENT DEPTH, EDGE DISTANCES, AND SPACING ARE CRUCIAL. LOCATE AS SHOWN ON THE DRAWINGS.
- 7. HOLES INTO CONCRETE MUST NOT INTERFERE WITH REINFORCING BARS. THE CONTRACTOR SHALL REVIEW THE STRUCTURAL DRAWINGS AND USE FERRO-SCAN, CHIPPING, OR OTHER MEANS TO LOCATE REINFORCING BARS IN THE AREA. SPACE HOLES TO FIT AROUND REBAR AND FABRICATE FIXTURE TO MATCH.
- 8. HOLES IN CONCRETE SHALL BE THE PROPER SIZE AND THOROUGHLY CLEANED WITH ALL DUST REMOVED. DRILL HOLES USING A HOLLOW BIT AND FUNCTIONING VACUUM SYSTEM, THEN BRUSH AND BLOWOUT WITH COMPRESSED AIR.
- 9. INSTALL IN DRY CONCRETE IN CLEAN, DUST FREE HOLES USING METHOD AND PROCEDURE THAT MEETS MANUFACTURER'S RECOMMENDATIONS INCLUDING TEMPERATURE RANGE, HUMIDITY, INSTALLATION TIME, AND CURE TIME. FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. INSTRUCTIONS MUST BE INCLUDED IN THE ANCHOR PACKAGING.
- 10. PROVIDED STANDARD SIZE HOLES IN THE FASTENED STEEL ELEMENT (1/16" LARGER THAN BOLT DIAMETER). MARK AND DRILL ALL HOLES IN THE CONCRETE BEFORE SETTING STEEL. DO NOT OVERSIZE HOLES.
- 11. THE CONTRACTOR SHALL ARRANGE FOR A REPRESENTATIVE OF THE MANUFACTURER TO PROVIDE ONSITE INSTALLATION TRAINING FOR THEIR PRODUCTS. ADHESIVE ANCHOR INSTALLERS SHALL ALSO BE CERTIFIED BY A RECOGNIZED PROGRAM, SUCH AS BE ACI AND CRSI. SUBMIT DOCUMENTATION OF TRAINING AND CERTIFICATION OF PERSONNEL PRIOR TO PERFORMING SUCH WORK. PROVIDE A COPY TO THE OWNER'S INSPECTION AGENCY.
- 12. THE CONTRACTOR SHALL PROOF TEST ANCHORAGE AS PART OF THEIR QUALITY CONTROL AS WORK PROGRESSES. PROOF TEST 5% OF ALL ANCHORS AND REBAR IN EACH CONDITION, DISTRIBUTED THROUGHOUT THE PROJECT, AND AT LEAST (1) ANCHOR IN EACH STEEL FRAMING CONNECTION. AMOUNT OF TESTING SHALL BE INCREASED IF FAILURES OCCUR. OWNER'S INSPECTION AGENCY SHALL OBSERVE INSTALLATION FOR CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SHALL WITNESS CONTRACTOR'S PROOF TESTING.

COORDINATION AND CONSTRUCTION

- 1. THE PROJECT SPECIFICATIONS AND DRAWINGS ARE TO BE THOROUGHLY REVIEWED BEFORE COMMENCING WORK. THE CONTRACTOR IS TO EXECUTE ALL WORK REQUIRED AND NECESSARY FOR THE PROJECT IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, DRAWINGS, AND REFERENCE STANDARDS.
- 2. ALL EXISTING CONDITIONS ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION. REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER SO CORRECTIVE MEASURES, IF REQUIRED, MAY BE TAKEN.
- 3. ANCHOR RODS/BOLTS AND FOUNDATION DOWELS SHALL NOT BE REPAIRED, REPLACED OR FIELD MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.



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CIVIL ENGINEERING  
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LANDSCAPE  
ARCHITECTURE

[www.kleingers.com](http://www.kleingers.com)  
6219 Centre Park Dr.  
West Chester, OH 45069  
513.779.7851




**Deerfield Township**  
EST. 1803



**JULIE CROMWELL & ASSOCIATES, LLC**  
7140 Mari Ave., Suite 100  
Cincinnati, Ohio 45243  
(513) 321.2555  
[www.juliecromwell.com](http://www.juliecromwell.com)

SEAL:



NO.	DATE	DESCRIPTION
1	06.26.2025	100% CD BID SET

DEERFIELD TWP  
STREETSCAPE -  
HILLSLOPE + I-71  
SOUTH EXIT RAMP  
DEERFIELD TOWNSHIP, OHIO

PROJECT NO:	230146.002
DATE:	06.30.2025
SCALE:	

SHEET NAME:  
**GENERAL  
STRUCTURAL  
NOTES**

SHEET NO.  
**L203**



DECORATIVE AGGREGATE MULCH SPECIFICATION

SECTION INCLUDES DECORATIVE AGGREGATE MULCH, EDGING, AND WEED CONTROL BARRIER.

SUBMITTALS

SAMPLES FOR VERIFICATION: FOR EACH OF THE FOLLOWING:

1. DECORATIVE AGGREGATE MULCH: 5 LB OF EACH AGGREGATE REQUIRED, IN SEALED PLASTIC BAGS LABELED WITH SOURCE OF AGGREGATE. SAMPLE SHALL BE TYPICAL OF THE LOT OF MATERIAL TO BE DELIVERED AND INSTALLED ON-SITE; PROVIDE AN ACCURATE INDICATION OF COLOR, TEXTURE, AND MAKEUP OF THE MATERIAL.
2. WEED CONTROL BARRIER: 12 BY 12 INCHES.
3. EDGING MATERIALS AND ACCESSORIES: MANUFACTURER'S STANDARD SIZE, TO VERIFY COLOR SELECTED.

PROJECT CONDITIONS: DO NOT APPLY AGGREGATE IF SUBGRADE IS WET OR EXCESSIVELY DAMP, IF RAIN IS IMMINENT OR EXPECTED BEFORE TIME REQUIRED FOR ADEQUATE CURE, OR IF THE FOLLOWING CONDITIONS ARE NOT MET:

LIGHT COLOR DECORATIVE AGGREGATE

AGGREGATE MULCH: HARD, DURABLE STONE, WASHED FREE OF LOAM, SAND, CLAY, AND OTHER FOREIGN SUBSTANCES, OF THE FOLLOWING TYPE, SIZE RANGE, AND COLOR:

1. TYPE: ANGULAR CRUSHED GRAVEL OR STONE.
2. SIZE RANGE: 3/16 INCH THICK BY 6" H. X 6" W.
3. COLOR: NATURAL CREAM.

DARK COLOR DECORATIVE AGGREGATE

AGGREGATE MULCH: HARD, DURABLE STONE, WASHED FREE OF LOAM, SAND, CLAY, AND OTHER FOREIGN SUBSTANCES, OF THE FOLLOWING TYPE, SIZE RANGE, AND COLOR:

1. TYPE: ANGULAR CRUSHED GRAVEL OR STONE.
2. SIZE RANGE: 6 INCHES MAXIMUM, 2 INCH MINIMUM.
3. COLOR: NATURAL BROWN.

PLASTIC EDGING: 6" X 6" TECO-EDG PVC EDGING BY OLY-OLA, FLEXIBLE STYLE WITH DRAINAGE SLOTS AND STAKE HOLES, FABRICATED IN SECTIONS OF STANDARD LENGTHS.

1. EDGING SIZE: 3/16 INCH THICK BY 6" H. X 6" W.
2. STAKES: TAPERED STEEL, A MINIMUM OF 12 INCHES LONG.
3. ACCESSORIES: H-CLIP SPLICERS WITH PVC CEMENT.
  - a. FINISH: MANUFACTURER'S STANDARD

NONWOVEN GEOTEXTILE FILTER FABRIC: POLYPROPYLENE OR POLYESTER FABRIC, 3 OZ./SQ. YD. MINIMUM. COMPOSED OF FIBERS FORMED INTO A STABLE NETWORK SO THAT FIBERS RETAIN THEIR RELATIVE POSITION. FABRIC SHALL BE INERT TO BIOLOGICAL DEGRADATION AND RESIST NATURALLY ENCOUNTERED CHEMICALS, ALKALIS, AND ACIDS.

EXAMINATION

VERIFY THAT SUBGRADE IS DRY AND IN SUITABLE CONDITION TO BEGIN PAVING.

INSTALL WEED-CONTROL BARRIERS BEFORE MULCHING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. COMPLETELY COVER AREA TO BE MULCHED, OVERLAPPING EDGES A MINIMUM OF 12 INCHES AND SECURE SEAMS WITH GALVANIZED PINS.

INSTALL PVC EDGING AS SHOWN IN DETAILS ON SHEET L200 ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

PLACEMENT OF AGGREGATE SURFACING

COMPACT AGGREGATE TO 95% MODIFIED PROCTOR COMPACTION BY COMPACTION EQUIPMENT SUCH AS DOUBLE DRUM ROLLER, SINGLE DRUM ROLLER, OR VIBRATORY PLATE TAMP.

TAKE CARE IN COMPACTING AGGREGATE WHEN ADJACENT TO PLANTINGS OR TREES SO AS NOT TO DAMAGE.

MAINTENANCE

REMOVE DEBRIS, SUCH AS PAPER, GRASS CLIPPINGS, LEAVES OR OTHER ORGANIC MATERIAL BY MECHANICALLY BLOWING OR HAND RAKING THE SURFACE AS NEEDED.

DISPOSAL

REMOVE EXCAVATED MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN AN EPA-APPROVED LANDFILL.

PLANTING SOIL SPECIFICATION

SECTION INCLUDES PLANTING SOIL MIX.

THE ENGINEER SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS.

REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (CURRENT EDITION) AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE GOVERNING AGENCIES. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

SOIL-TESTING LABORATORY QUALIFICATIONS:

AN INDEPENDENT LABORATORY OR UNIVERSITY LABORATORY, RECOGNIZED BY THE STATE DEPARTMENT OF AGRICULTURE, WITH THE EXPERIENCE AND CAPABILITY TO CONDUCT THE TESTING INDICATED AND THAT SPECIALIZES IN TYPES OF TESTS TO BE PERFORMED.

SOIL ANALYSIS:

FOR EACH UNAMENDED SOIL TYPE, FURNISH SOIL ANALYSIS AND A WRITTEN REPORT BY A QUALIFIED SOIL-TESTING LABORATORY STATING PERCENTAGES OF ORGANIC MATTER; GRADATION OF SAND, SILT, AND CLAY CONTENT; CATION EXCHANGE CAPACITY; DELETERIOUS MATERIAL; PH; AND MINERAL AND PLANT-NUTRIENT CONTENT OF THE SOIL. TESTING METHODS AND WRITTEN RECOMMENDATIONS SHALL COMPLY WITH USDA'S HANDBOOK NO.60. THE SOIL-TESTING LABORATORY SHALL OVERSEE SOIL SAMPLING, WITH DEPTH, LOCATION, AND NUMBER OF SAMPLES TO BE TAKEN PER INSTRUCTIONS FROM ARCHITECT. A MINIMUM OF THREE REPRESENTATIVE SAMPLES SHALL BE TAKEN FROM VARIED LOCATIONS FOR EACH SOIL TO BE USED OR AMENDED FOR PLANTING PURPOSES. REPORT SUITABILITY OF TESTED SOIL FOR PLANT AND TURF GROWTH SPECIFIC TO THIS PROJECT. BASED ON THE TEST RESULTS, STATE RECOMMENDATIONS FOR SOIL TREATMENTS AND SOIL AMENDMENTS TO BE INCORPORATED. STATE RECOMMENDATIONS IN WEIGHT PER 1000 SQ.FT. OR VOLUME PER CU. YD. FOR NITROGEN, PHOSPHORUS, AND POTASH NUTRIENTS AND SOIL AMENDMENTS TO BE ADDED TO PRODUCE SATISFACTORY PLANTING SOIL SUITABLE FOR HEALTHY, VIABLE PLANTS. REPORT PRESENCE OF PROBLEM SALTS, MINERALS, OR HEAVY METALS, INCLUDING ALUMINUM, ARSENIC, BARIUM, CADMIUM, CHROMIUM, COBALT, LEAD, LITHIUM, AND VANADIUM. IF SUCH PROBLEM MATERIALS ARE PRESENT, PROVIDE ADDITIONAL RECOMMENDATIONS FOR CORRECTIVE ACTION

PLANTING SOIL:

AMEND ALL IMPORTED TOPSOIL ON-SITE BY MIXING WITH SAND AND COMPOST TO MANUFACTURE SPECIFIED SOIL MIX. ANY AMENDMENTS USED TO MANUFACTURE A SOIL TO BE IMPORTED SHALL MEET THE SPECIFICATIONS DEFINED BELOW.

AMENDED TOPSOIL:

THE ON-SITE SOIL OR ANY IMPORTED TOPSOIL SHALL BE AMENDED WITH THE SPECIFIED SAND OR COMPOST TO PRODUCE A SOIL MEETING THE FOLLOWING CRITERION, AS DETERMINED BY ASTM F1632 OR D422:

1. SAND: (0.05 TO 2.0 MM) 65% - 75% WITH AT LEAST 50% OF THE TOTAL SAND FALLING INTO THE MEDIUM AND COARSE SAND FRACTIONS AND NO MORE THAN 25% OF THE TOTAL SAND IN THE FIN AND VERY FINE SAND FRACTIONS.
2. SILT: (0.002 TO 0.05 MM) 15% - 25%
3. CLAY: (<0.002 MM) 5% - 15%
4. GRAVEL: (>2.0 MM) <15% MAXIMUM SIZE SHALL BE THREE EIGHTS (3/8") INCHES LARGEST DIAMETER

THE AMENDED SOIL SHALL HAVE AN ORGANIC MATTER CONTENT OF 5 TO 6% (BY WEIGHT) AS DETERMINED BY ASTM F1847. FOR BIDDING PURPOSES, THE AMOUNT OF COMPOST REQUIRED TO INCREASE THE ORGANIC MATTER CONTENT TO MEET THE SPECIFICATIONS CAN RANGE FROM 30 TO 50% BY VOLUME, DEPENDING ON THE QUALITY OF THE COMPOST.

RATIO OF THE PARTICLE SIZE FOR 80% PASSING (D80) TO THE PARTICLE SIZE FOR 30% PASSING (D30) SHALL BE 5.5 OR LESS (D80/D30 <8).

THE AMENDED SOIL SHALL HAVE A MINIMUM PERCOLATION RATE OF 0.50-INCH PER HOUR WITH THE SOIL COMPACTED TO 88% OF MAXIMUM STANDARD PROCTOR DENSITY (ASTM D698).

THE PLANTING SOIL MEETING THIS SPECIFICATION SHALL SERVE AS THE BASELINE FOR SUBSEQUENT QUALITY CONTROL TESTING. SAMPLES SHALL BE TAKEN EVERY 1000 YARDS FOR CONFORMITY TO THE SPECIFICATIONS. QUALITY CONTROL TESTING SHALL INCLUDE ORGANIC MATTER CONTENT AND PARTICLE SIZE ANALYSIS.

THE FINAL SOIL MIX SHALL BE SUBMITTED TO TESTING AGENCY TO DETERMINE THE FERTILITY STATUS OF THE SOIL.

SAND:

SAND SHALL BE BLENDED INTO THE TOPSOIL IN THE PROPER AMOUNT TO ACHIEVE THE PARTICLE SIZE DISTRIBUTION DESCRIBED IN THESE SPECIFICATIONS. SAND FOR USE AS A SOIL AMENDMENT SHALL BE WASHED NATURAL OR CLASSIFIED SAND MEETING THE FOLLOWING PARTICLE SIZE DISTRIBUTION AS DETERMINED BY ASTM C-136 OR F1632. IN ADDITION, THE SAND SHALL HAVE A COEFFICIENT OF UNIFORMITY (D60/D10) OF LESS THAN 4.0.

	SIEVE	SIEVE SIZE	% PASSING
NO. 4	4.75 MM		100%
NO. 8	2.38 MM		90 - 100%
NO. 16	1.19 MM		80 - 100%
NO. 30	0.60 MM		25 - 60%
NO. 50	0.30 MM		0 - 25%
NO. 100	0.15 MM		0 - 5%
NO. 270	0.075 MM		0 - 3%

PLANTING SOIL MAY BE ALTERED, UPON APPROVAL OF THE ENGINEER, BY ADDING APPROVED CONDITIONERS. CONDITIONERS SHALL CONFORM TO ODOT ITEM 653 AS DETERMINED BY THE ENGINEER.

MIXING PLANTING SOIL: SOIL ADDITIVES SHALL BE THOROUGHLY INCORPORATED INTO PLANTING SOIL BY HARROWING OR OTHER METHODS STANDARD TO THE INDUSTRY. CORRECT DEFICIENCIES IN SOIL AS DIRECTED BY HORTICULTURAL SOIL TEST RESULTS. THOROUGHLY INCORPORATE AMENDMENTS INTO PLANTING MIXTURE TO ENSURE EVEN DISTRIBUTION.

PREPARATION OF THE SUBGRADE IN LANDSCAPE AREAS:

PRIOR TO THE PLACEMENT OF PLANTING SOIL AND THE ESTABLISHMENT OF THE FINISHED GRADE, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO INSPECT THE SUBGRADE FOR SUITABILITY FOR PLANTING. IF SUBSURFACE BEDROCK, SHALE, OR OTHER OBSTRUCTIONS ARE ENCOUNTERED IN THE SUBGRADE, THE ENGINEER MAY SELECT ALTERNATE LOCATIONS FOR PLANT PLACEMENTS. WHERE LOCATIONS CANNOT BE CHANGED, THE UNSUITABLE MATERIAL OR OBSTRUCTION SHALL BE REMOVED TO A DEPTH, NO LESS, THAN 6" BELOW BOTTOM OF THE ROOT BALL WHEN THE PLANT IS PROPERLY SET AT THE REQUIRED GRADE. THE ADDITIONAL EXCAVATION SHALL BE FILLED WITH A SUITABLE CLEAN SOIL MATERIAL FREE OF ROCK AND CONSTRUCTION DEBRIS AND SUITABLE FOR THE PLANTING SUBGRADE AS DETERMINED BY THE ENGINEER.


PLANTING SOIL PLACEMENT: PLACE PLANTING SOIL IN TWO LIFTS. PLACE THE FIRST LIFT TO A DEPTH OF 2 INCHES AND HARROW OR TILL THE LOAM INTO THE UNDERLYING SUBSOIL TO A DEPTH OF 2 INCHES, CREATING A BLENDED INTERFACE OF LOAM AND SUBSOIL APPROXIMATELY 4 INCHES DEEP. THE CONTRACTOR SHALL INSTALL PLANTING SOIL IN SUCCESSIVE HORIZONTAL LIFTS NO THICKER THAN 6 INCHES IN TURF AREAS AND 12 INCHES IN PLANT BED AREAS TO THE DESIRE COMPACTION AS DESCRIBED HEREIN. THE CONTRACTOR SHALL INSTALL THE SOIL AT A HIGHER LEVEL TO ANTICIPATE ANY REDUCTION OF PLANTING SOIL VOLUME DUE TO COMPACTION, SETTLING, EROSION, DECOMPOSITION, AND OTHER SIMILAR PROCESSES DURING THE WARRANTY PERIOD.

PLANTING SOIL DEPTHS:

1. PLANTING SOIL SHALL BE A MINIMUM OF 6 INCHES IN DEPTH IN ALL TURF GRASS AREAS.
2. PLANTING SOIL SHALL BE PLACED TO A DEPTH OF 12 INCHES IN ALL PLANTING BEDS CONTAINING SHRUBS, PERENNIALS, ORNAMENTAL GRASSES, GROUNDCOVER AND MEADOW MIX AREAS.
3. PLANTING SOIL SHALL BE A MINIMUM OF 30 INCHES IN ALL TREE PITS.

PREPARATION OF FINISHED GRADE:


THE PREPARATION OF PLANTING AREAS MAY BEGIN PRIOR TO THE SPECIFIED PLANTING SEASON PROVIDED THE FINISHED GRADE HAS BEEN ESTABLISHED AND APPROVED BY THE ENGINEER, AND PROVIDED THAT IN THE JUDGEMENT OF THE ENGINEER, THE GENERAL CONSTRUCTION WORK IS SUFFICIENTLY ADVANCED.




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[www.kleingers.com](http://www.kleingers.com)  
6219 Centre Park Dr.  
West Chester, OH 45069  
513.779.7851

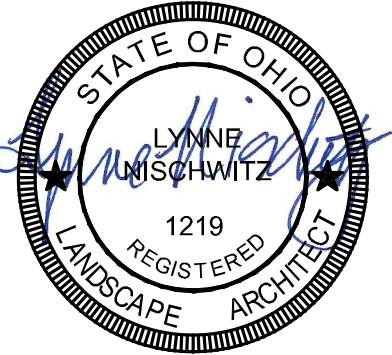


**Deerfield Township**  
EST. 1803



**JCA**  
JULIE CROMWELL & ASSOCIATES, LLC  
7140 Miami Ave., Suite 100  
Cincinnati, Ohio 45243  
(513) 321.2565  
[www.juliecromwell.com](http://www.juliecromwell.com)

SEAL:



NO.	DATE	DESCRIPTION
1	06.30.2025	100% CD BID SET

**DEERFIELD TWP  
STREETSCAPE -  
HILLSLOPE + I-71  
SOUTH EXIT RAMP**  
DEERFIELD TOWNSHIP, OHIO

PROJECT NO: **230146.002**

DATE: **06.30.2025**

SCALE:

SHEET NAME:

**SPECIFICATIONS**

SHEET NO.

**L300**



TURF AND GRASSES SPECIFICATION

SECTION INCLUDES SEEDING, HYDROSEEDING, MEADOW GRASSES, TURF RENOVATION, AND EROSION-CONTROL MATERIALS.

DEFINITIONS

1. FINISH GRADE: ELEVATION OF FINISHED SURFACE OF PLANTING SOIL.
2. PESTICIDE: A SUBSTANCE OR MIXTURE INTENDED FOR PREVENTING, DESTROYING, REPELLING, OR MITIGATING A PEST. PESTICIDES INCLUDE INSECTICIDES, MITICIDES, HERBICIDES, FUNGICIDES, RODENTICIDES, AND MOLLUSCICIDES. THEY ALSO INCLUDE SUBSTANCES OR MIXTURES INTENDED FOR USE AS A PLANT REGULATOR, DEFOLIANT, OR DESICCANT.
3. PESTS: LIVING ORGANISMS THAT OCCUR WHERE THEY ARE NOT DESIRED OR THAT CAUSE DAMAGE TO PLANTS, ANIMALS, OR PEOPLE. PESTS INCLUDE INSECTS, MITES, GRUBS, MOLLUSKS (SNAILS AND SLUGS), RODENTS (GOPHERS, MOLES, AND MICE), UNWANTED PLANTS (WEEDS), FUNGI, BACTERIA, AND VIRUSES.
4. PLANTING SOIL: EXISTING, ON-SITE SOIL; IMPORTED SOIL; OR MANUFACTURED SOIL THAT HAS BEEN MODIFIED WITH SOIL AMENDMENTS AND PERHAPS FERTILIZERS TO PRODUCE A SOIL MIXTURE BEST FOR PLANT GROWTH. SEE SECTION 329113 "SOIL PREPARATION."
5. SUBGRADE: THE SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER EXCAVATION IS COMPLETE, OR THE TOP SURFACE OF A FILL OR BACKFILL BEFORE PLANTING SOIL IS PLACED.

PREINSTALLATION MEETINGS: PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

SUBMITTALS

1. QUALIFICATION DATA: FOR LANDSCAPE INSTALLER.
2. CERTIFICATION OF GRASS SEED: FROM SEED VENDOR FOR EACH GRASS-SEED MONOSTAND OR MIXTURE, STATING THE BOTANICAL AND COMMON NAME, PERCENTAGE BY WEIGHT OF EACH SPECIES AND VARIETY, AND PERCENTAGE OF PURITY, GERMINATION, AND WEED SEED. INCLUDE THE YEAR OF PRODUCTION AND DATE OF PACKAGING.
3. PRODUCT CERTIFICATES: FOR FERTILIZERS, FROM MANUFACTURER.
4. PESTICIDES AND HERBICIDES: PRODUCT LABEL AND MANUFACTURER'S APPLICATION INSTRUCTIONS SPECIFIC TO PROJECT.
5. MAINTENANCE DATA: RECOMMENDED PROCEDURES TO BE ESTABLISHED BY OWNER FOR MAINTENANCE OF TURF AND MEADOW DURING A CALENDAR YEAR. SUBMIT BEFORE EXPIRATION OF REQUIRED MAINTENANCE PERIODS.

QUALITY ASSURANCE

INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL TURF AND MEADOW ESTABLISHMENT.

1. PROFESSIONAL MEMBERSHIP: INSTALLER SHALL BE A MEMBER IN GOOD STANDING OF EITHER THE PROFESSIONAL LANDCARE NETWORK OR THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
2. EXPERIENCE: FIVE YEARS' EXPERIENCE IN TURF INSTALLATION.
3. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN WORK IS IN PROGRESS.
4. PERSONNEL CERTIFICATIONS: INSTALLER'S FIELD SUPERVISOR SHALL HAVE CERTIFICATION IN ALL OF THE FOLLOWING CATEGORIES FROM THE PROFESSIONAL LANDCARE NETWORK:
  - a. LANDSCAPE INDUSTRY CERTIFIED TECHNICIAN - EXTERIOR.
  - b. LANDSCAPE INDUSTRY CERTIFIED LAWN CARE MANAGER.
  - c. LANDSCAPE INDUSTRY CERTIFIED LAWN CARE TECHNICIAN.
5. PESTICIDE APPLICATOR: STATE LICENSED, COMMERCIAL.

DELIVERY, STORAGE, AND HANDLING

SEED AND OTHER PACKAGED MATERIALS: DELIVER PACKAGED MATERIALS IN ORIGINAL, UNOPENED CONTAINERS SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND INDICATION OF COMPLIANCE WITH STATE AND FEDERAL LAWS, AS APPLICABLE.

SOD: HARVEST, DELIVER, STORE, AND HANDLE SOD ACCORDING TO REQUIREMENTS IN "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS" AND "SPECIFICATIONS FOR TURFGRASS SOD TRANSPLANTING AND INSTALLATION" SECTIONS IN TP1'S "GUIDELINE SPECIFICATIONS TO TURFGRASS SODDING." DELIVER SOD WITHIN 24 HOURS OF HARVESTING AND IN TIME FOR PLANTING PROMPTLY. PROTECT SOD FROM BREAKAGE AND DRYING.

BULK MATERIALS:

1. DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
2. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS; DISCHARGE OF SOIL-BEARING WATER RUNOFF; AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.
3. ACCOMPANY EACH DELIVERY OF BULK MATERIALS WITH APPROPRIATE CERTIFICATES.

FIELD CONDITIONS

PLANTING RESTRICTIONS: PLANT DURING ONE OF THE FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH INITIAL MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION.

1. SPRING PLANTING: MARCH 15 TO JUNE 1.
2. FALL PLANTING: AUGUST 15 TO OCTOBER 15.

WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

SEED

GRASS SEED: FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH AOSA'S "RULES FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCES.

TURF SEED MIX: SEED OF GRASS SPECIES AS FOLLOWS, WITH NOT LESS THAN 95 PERCENT GERMINATION, NOT LESS THAN 100 PERCENT PURE SEED, AND COMPLETELY FREE OF NOXIOUS WEEDS AND GRASSES. THE MIXTURE SHALL BE AS FOLLOWS OR AN APPROVED EQUAL: (MIXTURE SHALL RATE IN NTEP'S TOP TEN. CONTRACTOR TO PROVIDE INFORMATION ON GRASS SEED STATING IT MEETS NTEP'S TOP TEN LIST)

1. 80-90 PERCENT TURF-TYPE TALL FESCUE, MINIMUM 3 VARIETIES (15 PERCENT MINIMUM FOR ANY VARIETY).
2. 5-10 PERCENT PERENNIAL RYEGRASS.
3. 5-10 PERCENT KENTUCKY BLUEGRASS.

MEADOW SEED MIX: FRESH, CLEAN, AND DRY NEW SEED, OF MIXED SPECIES AS FOLLOWS:

1. ERNMX-179 "BUTTERFLY & HUMMINGBIRD GARDEN MIX" MANUFACTURED BY ERNST SEEDS, PHONE: 800-873-3321.

COVER CROP:

1. ERNMX-135 "COVER CROP MIX" MANUFACTURED BY ERNST SEEDS, PHONE: 800-873-3321.

FERTILIZERS

1. COMMERCIAL FERTILIZER: COMMERCIAL-GRADE COMPLETE FERTILIZER OF NEUTRAL CHARACTER, CONSISTING OF QUICK RELEASE NITROGEN SOURCE, PHOSPHATE, AND POTASH. APPLY NITROGEN, PHOSPHATE AND POTASH IN THE AMOUNTS RECOMMENDED IN THE SOIL REPORTS FROM A QUALIFIED TESTING AGENCY.
2. SLOW-RELEASE FERTILIZER: GRANULAR FERTILIZER CONSISTING OF A MINIMUM OF 50 PERCENT WATER-INSOLUBLE NITROGEN OR COATED NITROGEN SOURCE, PHOSPHATE, AND POTASH. APPLY NITROGEN, PHOSPHATE AND POTASH IN THE AMOUNTS RECOMMENDED IN THE SOIL REPORTS FROM A QUALIFIED TESTING AGENCY.

MULCHES

1. STRAW MULCH: PROVIDE AIR-DRY, CLEAN, MILDEW- AND SEED-FREE, SALT HAY OR THRESHED STRAW OF WHEAT, RYE, OATS, OR BARLEY.
2. FIBER MULCH: BIODEGRADABLE, DYED-WOOD, CELLULOSE-FIBER MULCH; NONTOXIC AND FREE OF PLANT-GROWTH OR GERMINATION INHIBITORS; WITH A MAXIMUM MOISTURE CONTENT OF 15 PERCENT AND A PH RANGE OF 4.5 TO 6.5.
3. NONASPHALTIC TACKIFIER: COLLOIDAL TACKIFIER RECOMMENDED BY FIBER-MULCH MANUFACTURER FOR SLURRY APPLICATION; NONTOXIC AND FREE OF PLANT-GROWTH OR GERMINATION INHIBITORS.

PESTICIDES

GENERAL: PESTICIDE, REGISTERED AND APPROVED BY THE EPA, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE RESTRICTED PESTICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.

1. PRE-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING THE GERMINATION OR GROWTH OF WEEDS WITHIN PLANTED AREAS AT THE SOIL LEVEL DIRECTLY BELOW THE MULCH LAYER.
2. POST-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING WEED GROWTH THAT HAS ALREADY GERMINATED.

EROSION-CONTROL MATERIALS

1. EROSION-CONTROL BLANKETS: BIODEGRADABLE WOOD EXCELSIOR, 80 PERCENT OF WHICH IS AT LEAST 6 INCHES IN LENGTH, IN A 100% BIODEGRADABLE NETTING; SUITABLE FOR SLOPES UP TO 2H:1V; INCLUDE MANUFACTURER'S RECOMMENDED STEEL WIRE STAPLES, 6 INCHES LONG.
2. EROSION-CONTROL JUTE MAT: ODOT 712.11 TYPE F TEMPORARY EROSION-CONTROL JUTE MAT

EXAMINATION

EXAMINE AREAS TO BE PLANTED FOR COMPLIANCE WITH REQUIREMENTS AND OTHER CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE OF THE WORK.

1. VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, OR ACID HAS BEEN DEPOSITED IN SOIL WITHIN A PLANTING AREA.
2. SUSPEND PLANTING OPERATIONS DURING PERIODS OF EXCESSIVE SOIL MOISTURE UNTIL THE MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS.
3. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE OR WHICH IS DUSTY.
4. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
5. IF CONTAMINATION BY FOREIGN OR DELETERIOUS MATERIAL OR LIQUID IS PRESENT IN SOIL WITHIN A PLANTING AREA, REMOVE THE SOIL AND CONTAMINATION AS DIRECTED BY ARCHITECT AND REPLACE WITH NEW PLANTING SOIL.

PREPARATION

1. PROTECT STRUCTURES; UTILITIES; SIDEWALKS; PAVEMENTS; AND OTHER FACILITIES, TREES, SHRUBS, AND PLANTINGS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.
2. PROTECT ADJACENT AND ADJOINING AREAS FROM HYDROSEEDING AND HYDROMULCHING OVERSPRAY.
3. PROTECT GRADE STAKES SET BY OTHERS UNTIL DIRECTED TO REMOVE THEM.
4. INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.

TURF AREA PREPARATION

GENERAL: PREPARE PLANTING AREA FOR SOIL PLACEMENT AND MIX PLANTING SOIL PER "PLANTING SOIL" SPECIFICATION.

1. LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES. REMOVE STONES LARGER THAN 2 INCHES IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEIOUS MATTER AND LEGALLY DISPOSE OF THE OFF SITE.
2. PLACING PLANTING SOIL: PLACE AND MIX PLANTING SOIL PER "PLANTING SOIL" SPECIFICATION.
3. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN PLUS OR MINUS 1/2 INCH OF FINISH ELEVATION. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINISH GRADING TO AREAS THAT CAN BE PLANTED IN THE IMMEDIATE FUTURE. MOISTEN PREPARED AREA BEFORE PLANTING IF SOIL IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL. BEFORE PLANTING, OBTAIN FIELD ENGINEER'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.
4. BEFORE PLANTING, OBTAIN ARCHITECT'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.

PREPARATION FOR EROSION-CONTROL MATERIALS

1. PREPARE AREA AS SPECIFIED ABOVE.
2. FOR EROSION-CONTROL BLANKET OR MESH, INSTALL FROM TOP OF SLOPE, WORKING DOWNWARD, AND AS RECOMMENDED BY MATERIAL MANUFACTURER FOR SITE CONDITIONS. FASTEN AS RECOMMENDED BY MATERIAL MANUFACTURER.
3. MOISTEN PREPARED AREA BEFORE PLANTING IF SURFACE IS DRY. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE PLANTING. DO NOT CREATE MUDDY SOIL.

SEEDING

1. SOW SEED WITH SPREADER OR SEEDING MACHINE. DO NOT BROADCAST OR DROP SEED WHEN WIND VELOCITY EXCEEDS 5 MPH.
  - a. EVENLY DISTRIBUTE SEED BY SOWING EQUAL QUANTITIES IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER.
  - b. DO NOT USE WET SEED OR SEED THAT IS MOLDY OR OTHERWISE DAMAGED.
  - c. DO NOT SEED AGAINST EXISTING TREES. LIMIT EXTENT OF SEED TO OUTSIDE EDGE OF PLANTING SAUCER.
2. SOW TURF GRASS SEED AT A TOTAL RATE OF 6 TO 8 LB/1000 SQ. FT..
3. RAKE SEED LIGHTLY INTO TOP 1/8 INCH OF SOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY.
4. PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 1:4 WITH EROSION-CONTROL BLANKETS AND 1:6 WITH EROSION-CONTROL FIBER MESH INSTALLED AND STAPLED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. PROTECT SEEDED AREAS WITH SLOPES NOT EXCEEDING 1:6 BY SPREADING STRAW MULCH. SPREAD UNIFORMLY AT A MINIMUM RATE OF 2 TONS/ACRE TO FORM A CONTINUOUS BLANKET 1-1/2 INCHES IN LOOSE THICKNESS OVER SEEDED AREAS. SPREAD BY HAND, BLOWER, OR OTHER SUITABLE EQUIPMENT.
  - a. ANCHOR STRAW MULCH BY CRIMPING INTO SOIL WITH SUITABLE MECHANICAL EQUIPMENT.
6. OVERSEED TURF AREA EIGHT (8) WEEKS AFTER INITIAL SEEDING OPERATION AT A RATE OF 5 LBS/1000 SQ. FT., IF INITIAL SEEDING HAS NOT PROVIDED A MINIMUM OF 90% COVERAGE OVER ANY 10 SQ. FT., OR IF BARE AREAS GREATER THE 3 BY 3 INCHES ARE PRESENT.

HYDROSEEDING: MIX SPECIFIED SEED, COMMERCIAL FERTILIZER, AND FIBER MULCH IN WATER, USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION. CONTINUE MIXING UNTIL UNIFORMLY BLENDED INTO HOMOGENEOUS SLURRY SUITABLE FOR HYDRAULIC APPLICATION.

1. MIX SLURRY WITH NONASPHALTIC TACKIFIER.
2. SPRAY-APPLY SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDED IN A TWO-STEP PROCESS. APPLY FIRST SLURRY COAT AT A RATE SO THAT MULCH COMPONENT IS DEPOSITED AT NOT LESS THAN 500-LB/ACRE DRY WEIGHT, AND SEED COMPONENT IS DEPOSITED AT NOT LESS THAN THE SPECIFIED SEED-SOWING RATE. APPLY SLURRY COVER COAT OF FIBER MULCH (HYDROMULCHING) AT A RATE OF 1000 LB/ACRE.

TURF RENOVATION

1. RENOVATE EXISTING TURF WHERE INDICATED.
2. RENOVATE TURF DAMAGED BY CONTRACTOR'S OPERATIONS, SUCH AS STORAGE OF MATERIALS OR EQUIPMENT AND MOVEMENT OF VEHICLES.
  - a. REESTABLISH TURF WHERE SETTLEMENT OR WASHOUTS OCCUR OR WHERE MINOR REGRADING IS REQUIRED.
  - b. INSTALL NEW PLANTING SOIL AS REQUIRED.
3. REMOVE SOD AND VEGETATION FROM DISEASED OR UNSATISFACTORY TURF AREAS; DO NOT BURY IN SOIL.
4. REMOVE TOPSOIL CONTAINING FOREIGN MATERIALS, SUCH AS OIL DRIPPINGS, FUEL SPILLS, STONES, GRAVEL, AND OTHER CONSTRUCTION MATERIALS RESULTING FROM CONTRACTOR'S OPERATIONS, AND REPLACE WITH NEW PLANTING SOIL.
5. MOW, DETHATCH, CORE AERATE, AND RAKE EXISTING TURF.
6. REMOVE WEEDS BEFORE SEEDING. WHERE WEEDS ARE EXTENSIVE, APPLY SELECTIVE HERBICIDES AS REQUIRED. DO NOT USE PRE-EMERGENCE HERBICIDES.
7. REMOVE WASTE AND FOREIGN MATERIALS, INCLUDING WEEDS, SOIL CORES, GRASS, VEGETATION, AND TURF, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
8. TILL STRIPPED, BARE, AND COMPACTED AREAS THOROUGHLY TO A SOIL DEPTH OF 6 INCHES.
9. APPLY INITIAL FERTILIZER REQUIRED FOR ESTABLISHING NEW TURF AND MIX THOROUGHLY INTO TOP 4 INCHES OF EXISTING SOIL. INSTALL NEW PLANTING SOIL TO FILL LOW SPOTS AND MEET FINISH GRADES.
  - a. INITIAL FERTILIZER: COMMERCIAL FERTILIZER APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
10. APPLY SEED AND PROTECT WITH STRAW MULCH AS REQUIRED FOR NEW TURF.
11. WATER NEWLY PLANTED AREAS AND KEEP MOIST UNTIL NEW TURF IS ESTABLISHED.

TURF MAINTENANCE

GENERAL: MAINTAIN AND ESTABLISH TURF BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE TURF. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH TURF. PROVIDE MATERIALS AND INSTALLATION THE SAME AS THOSE USED IN THE ORIGINAL INSTALLATION.

1. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MATERIALS AND TURF DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
2. IN AREAS WHERE MULCH HAS BEEN DISTURBED BY WIND OR MAINTENANCE OPERATIONS, ADD NEW MULCH AND ANCHOR AS REQUIRED TO PREVENT DISPLACEMENT.
3. APPLY TREATMENTS AS REQUIRED TO KEEP TURF AND SOIL FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHENEVER POSSIBLE TO MINIMIZE THE USE OF PESTICIDES AND REDUCE HAZARDS.

WATERING: INSTALL AND MAINTAIN TEMPORARY PIPING, HOSES, AND TURF-WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND TO KEEP TURF UNIFORMLY MOIST TO A DEPTH OF 4 INCHES.

1. SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. LAY OUT TEMPORARY WATERING SYSTEM TO AVOID WALKING OVER MUDDY OR NEWLY PLANTED AREAS.
2. WATER TURF WITH FINE SPRAY AT A MINIMUM RATE OF 1 INCH PER WEEK UNLESS RAINFALL PRECIPITATION IS ADEQUATE.

MOW TURF AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIED HEIGHT WITHOUT CUTTING MORE THAN ONE-THIRD OF GRASS HEIGHT. REMOVE NO MORE THAN ONE-THIRD OF GRASS-LEAF GROWTH IN INITIAL OR SUBSEQUENT MOWINGS. DO NOT DELAY MOWING UNTIL GRASS BLADES BEND OVER AND BECOME MATTED. DO NOT MOW WHEN GRASS IS WET. SCHEDULE INITIAL AND SUBSEQUENT MOWINGS TO MAINTAIN THE FOLLOWING GRASS HEIGHT:

1. MOW TURF TO A HEIGHT OF 2 TO 3 INCHES.

TURF POST-FERTILIZATION: APPLY FERTILIZER AFTER INITIAL MOWING AND WHEN GRASS IS DRY.

1. USE FERTILIZER THAT PROVIDES ACTUAL NITROGEN OF 1 LB/1000 SQ. FT. TO TURF AREA.
2. SECOND APPLICATION FERTILIZER: APPLY SIX (6) WEEKS AFTER SEEDING OPERATIONS. PROVIDE A HIGH NITROGEN SLOW RELEASE FERTILIZER WITH AN ANALYSIS OF 30-3-10 OR SIMILAR. APPLY AT A RATE TO PROVIDE ACTUAL NITROGEN OF 1 LB/1000 SQ. FT. TO TURF AREA.

SATISFACTORY TURF

TURF INSTALLATIONS SHALL MEET THE FOLLOWING CRITERIA AS DETERMINED BY ARCHITECT:

1. SATISFACTORY SEEDED TURF: AT END OF MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE IRREGULARITIES, WITH COVERAGE EXCEEDING 90 PERCENT OVER ANY 10 SQ. FT. AND BARE SPOTS NOT EXCEEDING 5 BY 5 INCHES.
- MEADOW
- SOW MEADOW MIX AND COVER CROP SEED WITH SPREADER OR SEEDING MACHINE. DO NOT BROADCAST OR DROP SEED WHEN WIND VELOCITY EXCEEDS 5 MPH.
2. EVENLY DISTRIBUTE SEED BY SOWING EQUAL QUANTITIES IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER.
  3. DO NOT USE WET SEED OR SEED THAT IS MOLDY OR OTHERWISE DAMAGED.
  4. SOW MEADOW MIX SEED AT RATE A RATE OF 10 LBS PER ACRE.
  5. SOW COVER CROP SEED AT A RATE OF 30 LBS PER ACRE.
  6. BRUSH SEED INTO TOP 1/16 INCH OF SOIL, ROLL LIGHTLY, AND WATER WITH FINE SPRAY.
  7. PROTECT SEEDED AREAS WITH SLOPES EXCEEDING 1:4 WITH EROSION-CONTROL BLANKETS AND 1:6 WITH EROSION-CONTROL FIBER MESH INSTALLED AND STAPLED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
  8. PROTECT SEEDED AREAS WITH SLOPES NOT EXCEEDING 1:6 BY SPREADING STRAW MULCH. SPREAD UNIFORMLY AT A MINIMUM RATE OF 2 TONS/ACRE TO FORM A CONTINUOUS BLANKET 1-1/2 INCHES IN LOOSE THICKNESS OVER SEEDED AREAS. SPREAD BY HAND, BLOWER, OR OTHER SUITABLE EQUIPMENT.
    - a. ANCHOR STRAW MULCH BY CRIMPING INTO SOIL WITH SUITABLE MECHANICAL EQUIPMENT.
  8. WATER NEWLY PLANTED AREAS AND KEEP MOIST UNTIL MEADOW IS ESTABLISHED.

MEADOW MAINTENANCE

MAINTAIN AND ESTABLISH MEADOW BY WATERING, WEEDING, MOWING, TRIMMING, REPLANTING, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH A HEALTHY, VIABLE MEADOW. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH. PROVIDE MATERIALS AND INSTALLATION THE SAME AS THOSE USED IN THE ORIGINAL INSTALLATION.

1. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MATERIALS AND MEADOW DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
2. IN AREAS WHERE MULCH HAS BEEN DISTURBED BY WIND OR MAINTENANCE OPERATIONS, ADD NEW MULCH AND ANCHOR AS REQUIRED TO PREVENT DISPLACEMENT.
3. APPLY TREATMENTS AS REQUIRED TO KEEP MEADOW AND SOIL FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHENEVER POSSIBLE TO MINIMIZE THE USE OF PESTICIDES AND REDUCE HAZARDS.

WATERING: INSTALL AND MAINTAIN TEMPORARY PIPING, HOSES, AND MEADOW-WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND TO KEEP MEADOW UNIFORMLY MOIST.

1. SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. LAY OUT TEMPORARY WATERING SYSTEM TO AVOID WALKING OVER MUDDY OR NEWLY PLANTED AREAS.
2. WATER MEADOW WITH FINE SPRAY AT A MINIMUM RATE OF 1/2 INCH PER WEEK FOR EIGHT WEEKS AFTER PLANTING UNLESS RAINFALL PRECIPITATION IS ADEQUATE.

USE SPECIFIED MATERIALS TO REESTABLISH TURF THAT DOES NOT COMPLY WITH REQUIREMENTS, AND CONTINUE MAINTENANCE UNTIL TURF IS SATISFACTORY.

PESTICIDE APPLICATION

1. APPLY PESTICIDES AND OTHER CHEMICAL PRODUCTS AND BIOLOGICAL CONTROL AGENTS ACCORDING TO REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S WRITTEN RECOMMENDATIONS. COORDINATE APPLICATIONS WITH OWNER'S OPERATIONS AND OTHERS IN PROXIMITY TO THE WORK. NOTIFY OWNER BEFORE EACH APPLICATION IS PERFORMED.
2. POST-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE); APPLY ONLY AS NECESSARY TO TREAT ALREADY-GERMINATED WEEDS AND ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.

CLEANUP AND PROTECTION

1. PROMPTLY REMOVE SOIL AND DEBRIS CREATED BY TURF WORK FROM PAVED AREAS. CLEAN WHEELS OF VEHICLES BEFORE LEAVING SITE TO AVOID TRACKING SOIL ONTO ROADS, WALKS, OR OTHER PAVED AREAS.
2. REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
3. ERECT TEMPORARY FENCING OR BARRICADES AND WARNING SIGNS AS REQUIRED TO PROTECT NEWLY PLANTED AREAS FROM TRAFFIC, MAINTAIN FENCING AND BARRICADES THROUGHOUT INITIAL MAINTENANCE PERIOD AND REMOVE AFTER PLANTINGS ARE ESTABLISHED.
4. REMOVE NON-DEGRADABLE EROSION-CONTROL MEASURES AFTER GRASS ESTABLISHMENT PERIOD.


MAINTENANCE SERVICE

TURF MAINTENANCE SERVICE: PROVIDE FULL MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLER. MAINTAIN AS REQUIRED IN "TURF MAINTENANCE" ARTICLE. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE TURF IS ESTABLISHED, BUT FOR NOT LESS THAN THE FOLLOWING PERIODS:

1. SEEDED AND SODDED TURF: 90 DAYS FROM DATE OF SUBSTANTIAL COMPLETION.
  - a. WHEN INITIAL MAINTENANCE PERIOD HAS NOT ELAPSED BEFORE END OF PLANTING SEASON, OR IF TURF IS NOT FULLY ESTABLISHED, CONTINUE MAINTENANCE DURING NEXT PLANTING SEASON.

MEADOW MAINTENANCE SERVICE: PROVIDE FULL MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLER. MAINTAIN AS REQUIRED IN "MEADOW MAINTENANCE" ARTICLE. BEGIN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE MEADOW IS ESTABLISHED, BUT FOR NOT LESS THAN MAINTENANCE PERIOD BELOW.


1. MAINTENANCE PERIOD: 90 DAYS FROM DATE OF SUBSTANTIAL COMPLETION.




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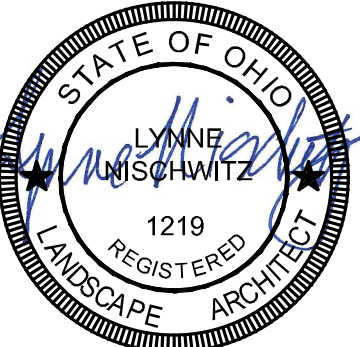


**Deerfield Township**  
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JULIE CROMWELL & ASSOCIATES, LLC  
7140 Miami Ave., Suite 100  
Cincinnati, Ohio 45243  
(513) 321.2565  
www.juliecromwell.com

SEAL:



NO.	DATE	DESCRIPTION
1	06.30.2025	100% CD BID SET

**DEERFIELD TWP  
STREETSCAPE -  
HILLSLOPE + I-71  
SOUTH EXIT RAMP**  
DEERFIELD TOWNSHIP, OHIO

PROJECT NO: **230146.002**

DATE: **06.30.2025**

SCALE:

SHEET NAME:

**SPECIFICATIONS**

SHEET NO.

**L301**



PLANTS SPECIFICATION

SECTION INCLUDES PLANTS AND PLANT STABILIZATION.

DEFINITIONS

1. BACKFILL: THE EARTH USED TO REPLACE OR THE ACT OF REPLACING EARTH IN AN EXCAVATION.
2. BALLED AND BURLAPPED STOCK: PLANTS DUG WITH FIRM, NATURAL BALLS OF EARTH IN WHICH THEY WERE GROWN, WITH A BALL SIZE NOT LESS THAN DIAMETER AND DEPTH RECOMMENDED BY ANSI Z60.1 FOR TYPE AND SIZE OF PLANT REQUIRED; WRAPPED WITH BURLAP, TIED, RIGIDLY SUPPORTED, AND DRUM LACED WITH TWINE WITH THE ROOT FLARE VISIBLE AT THE SURFACE OF THE BALL AS RECOMMENDED BY ANSI Z60.1.
3. CONTAINER-GROWN STOCK: HEALTHY, VIGOROUS, WELL-ROOTED PLANTS GROWN IN A CONTAINER, WITH A WELL-ESTABLISHED ROOT SYSTEM REACHING SIDES OF CONTAINER AND MAINTAINING A FIRM BALL WHEN REMOVED FROM CONTAINER. CONTAINER SHALL BE RIGID ENOUGH TO HOLD BALL SHAPE AND PROTECT ROOT MASS DURING SHIPPING AND BE SIZED ACCORDING TO ANSI Z60.1 FOR TYPE AND SIZE OF PLANT REQUIRED.
4. FINISH GRADE: ELEVATION OF FINISHED SURFACE OF PLANTING SOIL.
5. PESTICIDE: A SUBSTANCE OR MIXTURE INTENDED FOR PREVENTING, DESTROYING, REPELLING, OR MITIGATING A PEST. PESTICIDES INCLUDE INSECTICIDES, MITICIDES, HERBICIDES, FUNGICIDES, RODENTICIDES, AND MOLLUSCICIDES. THEY ALSO INCLUDE SUBSTANCES OR MIXTURES INTENDED FOR USE AS A PLANT REGULATOR, DEFOLIANT, OR DESICCANT. SOME SOURCES CLASSIFY HERBICIDES SEPARATELY FROM PESTICIDES.
6. PESTS: LIVING ORGANISMS THAT OCCUR WHERE THEY ARE NOT DESIRED OR THAT CAUSE DAMAGE TO PLANTS, ANIMALS, OR PEOPLE. PESTS INCLUDE INSECTS, MITES, GRUBS, MOLLUSKS (SNAILS AND SLUGS), RODENTS (GOPHERS, MOLES, AND MICE), UNWANTED PLANTS (WEEDS), FUNGI, BACTERIA, AND VIRUSES.
7. PLANTING AREA: AREAS TO BE PLANTED.
8. PLANTING SOIL: EXISTING, ON-SITE SOIL; IMPORTED SOIL; OR MANUFACTURED SOIL THAT HAS BEEN MODIFIED WITH SOIL AMENDMENTS AND PERHAPS FERTILIZERS TO PRODUCE A SOIL MIXTURE BEST FOR PLANT GROWTH.
9. PLANT; PLANTS; PLANT MATERIAL: THESE TERMS REFER TO VEGETATION IN GENERAL, INCLUDING TREES, SHRUBS, VINES, GROUND COVERS, ORNAMENTAL GRASSES, BULBS, CORMS, TUBERS, OR HERBACEOUS VEGETATION.
- 10.PLUG STOCK:
- 11.ROOT FLARE: ALSO CALLED "TRUNK FLARE." THE AREA AT THE BASE OF THE PLANT'S STEM OR TRUNK WHERE THE STEM OR TRUNK BROADENS TO FORM ROOTS; THE AREA OF TRANSITION BETWEEN THE ROOT SYSTEM AND THE STEM OR TRUNK.
- 12.STEM GIRDLING ROOTS: ROOTS THAT ENCIRCLE THE STEMS (TRUNKS) OF TREES BELOW THE SOIL SURFACE.
- 13.SUBGRADE: THE SURFACE OR ELEVATION OF SUBSOIL REMAINING AFTER EXCAVATION IS COMPLETE, OR THE TOP SURFACE OF A FILL OR BACKFILL BEFORE PLANTING SOIL IS PLACED.

COORDINATION

COORDINATION WITH TURF AREAS (LAWNS): PLANT TREES, SHRUBS, AND OTHER PLANTS AFTER FINISH GRADES ARE ESTABLISHED AND BEFORE PLANTING TURF AREAS UNLESS OTHERWISE INDICATED.

1. WHEN PLANTING TREES, SHRUBS, AND OTHER PLANTS AFTER PLANTING TURF AREAS, PROTECT TURF AREAS, AND PROMPTLY REPAIR DAMAGE CAUSED BY PLANTING OPERATIONS.

PREINSTALLATION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.

ACTION SUBMITTALS

PRODUCT DATA: FOR EACH TYPE OF PRODUCT.

1. PLANT PHOTOGRAPHS: INCLUDE COLOR PHOTOGRAPHS IN DIGITAL FORMAT OF EACH REQUIRED SPECIES AND SIZE OF PLANT MATERIAL AS IT WILL BE FURNISHED TO PROJECT. TAKE PHOTOGRAPHS FROM AN ANGLE DEPICTING TRUE SIZE AND CONDITION OF THE TYPICAL PLANT TO BE FURNISHED. INCLUDE A SCALE ROD OR OTHER MEASURING DEVICE IN EACH PHOTOGRAPH. FOR SPECIES WHERE MORE THAN 20 PLANTS ARE REQUIRED, INCLUDE A MINIMUM OF THREE PHOTOGRAPHS SHOWING THE AVERAGE PLANT, THE BEST QUALITY PLANT, AND THE WORST QUALITY PLANT TO BE FURNISHED. IDENTIFY EACH PHOTOGRAPH WITH THE FULL SCIENTIFIC NAME OF THE PLANT, PLANT SIZE, AND NAME OF THE GROWING NURSERY.
2. SAMPLES FOR VERIFICATION: FOR EACH OF THE FOLLOWING:
  - a. ORGANIC MULCH: 1-QUART VOLUME OF EACH ORGANIC MULCH REQUIRED; IN SEALED PLASTIC BAGS LABELED WITH COMPOSITION OF MATERIALS BY PERCENTAGE OF WEIGHT AND SOURCE OF MULCH. EACH SAMPLE SHALL BE TYPICAL OF THE LOT OF MATERIAL TO BE FURNISHED; PROVIDE AN ACCURATE REPRESENTATION OF COLOR, TEXTURE, AND ORGANIC MAKEUP.
  - b. SLOW-RELEASE, TREE-WATERING DEVICE: ONE UNIT OF EACH SIZE REQUIRED.

INFORMATIONAL SUBMITTALS

1. QUALIFICATION DATA: FOR LANDSCAPE INSTALLER, INCLUDE LIST OF SIMILAR PROJECTS COMPLETED BY INSTALLER DEMONSTRATING INSTALLER'S CAPABILITIES AND EXPERIENCE. INCLUDE PROJECT NAMES, ADDRESSES, AND YEAR COMPLETED, AND INCLUDE NAMES AND ADDRESSES OF OWNERS' CONTACT PERSONS.
2. PRODUCT CERTIFICATES: FOR EACH TYPE OF MANUFACTURED PRODUCT, FROM MANUFACTURER, AND COMPLYING WITH THE FOLLOWING:
  - a. MANUFACTURER'S CERTIFIED ANALYSIS OF STANDARD PRODUCTS.
  - b. ANALYSIS OF OTHER MATERIALS BY A RECOGNIZED LABORATORY MADE ACCORDING TO METHODS ESTABLISHED BY THE ASSOCIATION OF OFFICIAL ANALYTICAL CHEMISTS, WHERE APPLICABLE.
3. PESTICIDES AND HERBICIDES: PRODUCT LABEL AND MANUFACTURER'S APPLICATION INSTRUCTIONS SPECIFIC TO PROJECT.
4. SAMPLE WARRANTY: FOR SPECIAL WARRANTY.

CLOSEOUT SUBMITTALS

1. MAINTENANCE DATA: RECOMMENDED PROCEDURES TO BE ESTABLISHED BY OWNER FOR MAINTENANCE OF PLANTS DURING A CALENDAR YEAR. SUBMIT BEFORE EXPIRATION OF REQUIRED MAINTENANCE PERIODS.

QUALITY ASSURANCE

INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL ESTABLISHMENT OF PLANTS.

1. PROFESSIONAL MEMBERSHIP: INSTALLER SHALL BE A MEMBER IN GOOD STANDING OF EITHER THE PROFESSIONAL LANDCARE NETWORK OR THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
2. EXPERIENCE: FIVE YEARS' EXPERIENCE IN LANDSCAPE INSTALLATION IN ADDITION TO REQUIREMENTS IN SECTION 014000 "QUALITY REQUIREMENTS."
3. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN WORK IS IN PROGRESS.
4. PERSONNEL CERTIFICATIONS: INSTALLER'S FIELD SUPERVISOR SHALL HAVE CERTIFICATION IN ALL OF THE FOLLOWING CATEGORIES FROM THE PROFESSIONAL LANDCARE NETWORK:
  - a. LANDSCAPE INDUSTRY CERTIFIED TECHNICIAN - EXTERIOR.
  - b. LANDSCAPE INDUSTRY CERTIFIED HORTICULTURAL TECHNICIAN.
5. PESTICIDE APPLICATOR: STATE LICENSED, COMMERCIAL.

PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1.

MEASUREMENTS: MEASURE ACCORDING TO ANSI Z60.1. DO NOT PRUNE TO OBTAIN REQUIRED SIZES.

1. TREES AND SHRUBS: MEASURE WITH BRANCHES AND TRUNKS OR CANES IN THEIR NORMAL POSITION. TAKE HEIGHT MEASUREMENTS FROM OR NEAR THE TOP OF THE ROOT FLARE FOR FIELD-GROWN STOCK AND CONTAINER-GROWN STOCK. MEASURE MAIN BODY OF TREE OR SHRUB FOR HEIGHT AND SPREAD; DO NOT MEASURE BRANCHES OR ROOTS TIP TO TIP. TAKE CALIPER MEASUREMENTS 6 INCHES ABOVE THE ROOT FLARE FOR TREES UP TO 4-INCH CALIPER SIZE, AND 12 INCHES ABOVE THE ROOT FLARE FOR LARGER SIZES.
2. OTHER PLANTS: MEASURE WITH STEMS, PETIOLES, AND FOLIAGE IN THEIR NORMAL POSITION.

PLANT MATERIAL OBSERVATION: ARCHITECT MAY OBSERVE PLANT MATERIAL EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, CULTIVAR, SIZE, AND QUALITY. ARCHITECT MAY ALSO OBSERVE TREES AND SHRUBS FURTHER FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEMS, PESTS, DISEASE SYMPTOMS, INJURIES, AND LATENT DEFECTS AND MAY REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED TREES OR SHRUBS IMMEDIATELY FROM PROJECT SITE.

1. NOTIFY ARCHITECT OF SOURCES OF PLANTING MATERIALS SEVEN DAYS IN ADVANCE OF DELIVERY TO SITE.

DELIVERY, STORAGE, AND HANDLING

PACKAGED MATERIALS: DELIVER PACKAGED MATERIALS IN ORIGINAL, UNOPENED CONTAINERS SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND INDICATION OF COMPLIANCE WITH STATE AND FEDERAL LAWS IF APPLICABLE.

BULK MATERIALS:

1. DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
2. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS; DISCHARGE OF SOIL-BEARING WATER RUNOFF; AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.
3. ACCOMPANY EACH DELIVERY OF BULK MATERIALS WITH APPROPRIATE CERTIFICATES.

DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, WIND BURN, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF PLANTS DURING SHIPPING AND DELIVERY. DO NOT DROP PLANTS DURING DELIVERY AND HANDLING.

HANDLE PLANTING STOCK BY ROOT BALL.

WRAP TREES AND SHRUBS WITH BURLAP FABRIC OVER TRUNKS, BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT FROM WIND AND OTHER DAMAGE DURING DIGGING, HANDLING, AND TRANSPORTATION.

DELIVER PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED, AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET PLANTS AND TREES IN THEIR APPROPRIATE ASPECT (SUN, FILTERED SUN, OR SHADE), PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.

1. SET BALLED STOCK ON GROUND AND COVER BALL WITH SOIL, PEAT MOSS, SAWDUST, OR OTHER ACCEPTABLE MATERIAL.
2. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING.
3. WATER ROOT SYSTEMS OF PLANTS STORED ON-SITE DEEPLY AND THOROUGHLY WITH A FINE-MIST SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN A MOIST, BUT NOT OVERLY WET CONDITION.

FIELD CONDITIONS

FIELD MEASUREMENTS: VERIFY ACTUAL GRADE ELEVATIONS, SERVICE AND UTILITY LOCATIONS, IRRIGATION SYSTEM COMPONENTS, AND DIMENSIONS OF PLANTINGS AND CONSTRUCTION CONTIGUOUS WITH NEW PLANTINGS BY FIELD MEASUREMENTS BEFORE PROCEEDING WITH PLANTING WORK.

PLANTING RESTRICTIONS: PLANT DURING ONE OF THE FOLLOWING PERIODS. COORDINATE PLANTING PERIODS WITH MAINTENANCE PERIODS TO PROVIDE REQUIRED MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION.

1. SPRING PLANTING: MARCH 15 TO JUNE 1.
2. FALL PLANTING: SEPTEMBER 1 TO NOVEMBER 1.

WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS.

WARRANTY

SPECIAL WARRANTY: INSTALLER AGREES TO REPAIR OR REPLACE PLANTINGS AND ACCESSORIES THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN SPECIFIED WARRANTY PERIOD.

1. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
  - a. DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM ABUSE, LACK OF ADEQUATE MAINTENANCE, OR NEGLIGENCE BY OWNER.
  - b. STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.
  - c. FAULTY PERFORMANCE OF TREE STABILIZATION.
  - d. DETERIORATION OF METALS, METAL FINISHES, AND OTHER MATERIALS BEYOND NORMAL WEATHERING.
2. WARRANTY PERIODS: FROM DATE OF SUBSTANTIAL COMPLETION.
  - a. TREES, SHRUBS, VINES, AND ORNAMENTAL GRASSES: 12 MONTHS.
  - b. GROUND COVERS, BIENNIALS, PERENNIALS, AND OTHER PLANTS: 12 MONTHS.
  - c. ANNUALS: THREE MONTHS.
3. INCLUDE THE FOLLOWING REMEDIAL ACTIONS AS A MINIMUM:
  - a. IMMEDIATELY REMOVE DEAD PLANTS AND REPLACE UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.
  - b. REPLACE PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.
  - c. A LIMIT OF ONE REPLACEMENT OF EACH PLANT IS REQUIRED EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.
  - d. PROVIDE EXTENDED WARRANTY FOR PERIOD EQUAL TO ORIGINAL WARRANTY PERIOD, FOR REPLACED PLANT MATERIAL.

PLANT MATERIAL

GENERAL: FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT LIST, PLANT SCHEDULE, OR PLANT LEGEND INDICATED ON DRAWINGS AND COMPLYING WITH ANSI Z60.1; AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.

1. TREES WITH DAMAGED, CROOKED, OR MULTIPLE LEADERS; TIGHT VERTICAL BRANCHES WHERE BARK IS SQUEEZED BETWEEN TWO BRANCHES OR BETWEEN BRANCH AND TRUNK ("INCLUDED BARK"); CROSSING TRUNKS; CUT-OFF LIMBS MORE THAN 3/4 INCH IN DIAMETER; OR WITH STEM GIRDLING ROOTS ARE UNACCEPTABLE.
2. COLLECTED STOCK: DO NOT USE PLANTS HARVESTED FROM THE WILD, FROM NATIVE STANDS, FROM AN ESTABLISHED LANDSCAPE PLANTING, OR NOT GROWN IN A NURSERY UNLESS OTHERWISE INDICATED.

PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 FOR TYPES AND FORM OF PLANTS REQUIRED. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.

ROOT-BALL DEPTH: FURNISH TREES AND SHRUBS WITH ROOT BALLS MEASURED FROM TOP OF ROOT BALL, WHICH BEGINS AT ROOT FLARE ACCORDING TO ANSI Z60.1. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.

LABELING: LABEL EACH PLANT OF EACH VARIETY, SIZE, AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF COMMON NAME AND FULL SCIENTIFIC NAME, INCLUDING GENUS AND SPECIES. INCLUDE NOMENCLATURE FOR HYBRID, VARIETY, OR CULTIVAR, IF APPLICABLE FOR THE PLANT.

IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF PLANTS IS INDICATED ON DRAWINGS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER THE LABELS TO ASSURE SYMMETRY IN PLANTING.

FERTILIZERS: REFER TO PLANTING SOIL SPECIFICATION.

MULCHES

ORGANIC MULCH: FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, CONSISTING OF ONE OF THE FOLLOWING:

1. TYPE: DOUBLE-SHREDDED HARDWOOD.
2. SIZE RANGE: 3 INCHES MAXIMUM, 1/2 INCH MINIMUM.
3. COLOR: BLACK.

PESTICIDES

GENERAL: PESTICIDE REGISTERED AND APPROVED BY THE EPA, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE RESTRICTED PESTICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.

PRE-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING THE GERMINATION OR GROWTH OF WEEDS WITHIN PLANTED AREAS AT THE SOIL LEVEL DIRECTLY BELOW THE MULCH LAYER.

POST-EMERGENT HERBICIDE (SELECTIVE AND NONSELECTIVE): EFFECTIVE FOR CONTROLLING WEED GROWTH THAT HAS ALREADY GERMINATED.

SLOW-RELEASE WATERING DEVICE: STANDARD PRODUCT MANUFACTURED FOR DRIP IRRIGATION OF PLANTS AND EMPTYING ITS WATER CONTENTS OVER AN EXTENDED TIME PERIOD; MANUFACTURED FROM UV-LIGHT-STABILIZED NYLON-REINFORCED POLYETHYLENE SHEET, PVC, OR HDPE PLASTIC.

1. PRODUCT: TREGATOR ORIGINAL SLOW RELEASE WATERING BAG
  - a. COLOR: GREEN.

MISCELLANEOUS PRODUCTS

BURLAP: NON-SYNTHETIC, BIODEGRADABLE.

EXAMINATION

EXAMINE AREAS TO RECEIVE PLANTS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS AND CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE OF THE WORK.

1. VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, OR ACID HAS BEEN DEPOSITED IN SOIL WITHIN A PLANTING AREA.
2. VERIFY THAT PLANTS AND VEHICLES LOADED WITH PLANTS CAN TRAVEL TO PLANTING LOCATIONS WITH ADEQUATE OVERHEAD CLEARANCE.
3. SUSPEND PLANTING OPERATIONS DURING PERIODS OF EXCESSIVE SOIL MOISTURE UNTIL THE MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS.
4. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE OR WHICH IS DUSTY.

IF CONTAMINATION BY FOREIGN OR DELETERIOUS MATERIAL OR LIQUID IS PRESENT IN SOIL WITHIN A PLANTING AREA, REMOVE THE SOIL AND CONTAMINATION AS DIRECTED BY ARCHITECT AND REPLACE WITH NEW PLANTING SOIL.

PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

PREPARATION

PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES AND TURF AREAS AND EXISTING PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.

INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.

PLANTING AREA ESTABLISHMENT

GENERAL: PREPARE PLANTING AREA FOR SOIL PLACEMENT AND MIX PLANTING SOIL ACCORDING TO PLANTING SOIL SPECIFICATIONS.

PLACING PLANTING SOIL: PLACE AND MIX PLANTING SOIL ACCORDING TO PLANTING SOIL SPECIFICATION

BEFORE PLANTING, OBTAIN ARCHITECT'S ACCEPTANCE OF FINISH GRADING; RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.

EXCAVATION FOR TREES AND SHRUBS

PLANTING PITS AND TRENCHES: EXCAVATE CIRCULAR PLANTING PITS.


1. EXCAVATE PLANTING PITS WITH SIDES SLOPING INWARD AT A 45-DEGREE ANGLE. EXCAVATIONS WITH VERTICAL SIDES ARE UNACCEPTABLE. TRIM PERIMETER OF BOTTOM LEAVING CENTER AREA OF BOTTOM RAISED SLIGHTLY TO SUPPORT ROOT BALL AND ASSIST IN DRAINAGE AWAY FROM CENTER. DO NOT FURTHER DISTURB BASE. ENSURE THAT ROOT BALL WILL SIT ON UNDISTURBED BASE SOIL TO PREVENT SETTLING. SCARIFY SIDES OF PLANTING PIT SMEARED OR SMOOTHED DURING EXCAVATION.
2. EXCAVATE APPROXIMATELY THREE TIMES AS WIDE AS BALL DIAMETER FOR BALLED AND BURLAPPED AND CONTAINER-GROWN STOCK.
3. DO NOT EXCAVATE DEEPER THAN DEPTH OF THE ROOT BALL, MEASURED FROM THE ROOT FLARE TO THE BOTTOM OF THE ROOT BALL.
4. IF AREA UNDER THE PLANT WAS INITIALLY DUG TOO DEEP, ADD SOIL TO RAISE IT TO THE CORRECT LEVEL AND THOROUGHLY TAMP THE ADDED SOIL TO PREVENT SETTLING.
5. MAINTAIN ANGLES OF REPOSE OF ADJACENT MATERIALS TO ENSURE STABILITY. DO NOT EXCAVATE SUBGRADES OF ADJACENT PAVING, STRUCTURES, HARDSCAPES, OR OTHER NEW OR EXISTING IMPROVEMENTS.
6. MAINTAIN SUPERVISION OF EXCAVATIONS DURING WORKING HOURS.
7. KEEP EXCAVATIONS COVERED OR OTHERWISE PROTECTED WHEN UNATTENDED BY INSTALLER'S PERSONNEL.

BACKFILL SOIL: SUBSOIL AND TOPSOIL REMOVED FROM EXCAVATIONS MAY NOT BE USED AS BACKFILL SOIL UNLESS OTHERWISE INDICATED.

OBSTRUCTIONS: NOTIFY ARCHITECT IF UNEXPECTED ROCK OR OBSTRUCTIONS DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNTERED IN EXCAVATIONS.

1. HARDPAN LAYER: DRILL 6-INCH-DIAMETER HOLES, 24 INCHES APART, INTO FREE-DRAINING STRATA OR TO A DEPTH OF 10 FEET, WHICHEVER IS LESS, AND BACKFILL WITH FREE-DRAINING MATERIAL.


DRAINAGE: NOTIFY ARCHITECT IF SUBSOIL CONDITIONS EVIDENCE UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PLANTING PITS.




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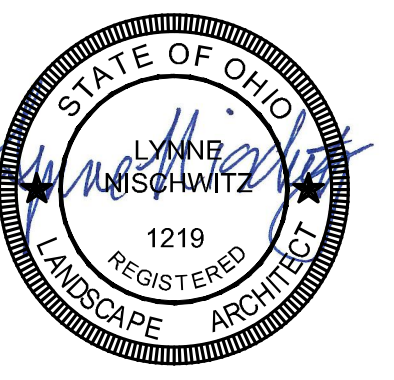


**Deerfield Township**  
EST. 1803



**JULIE CROMWELL & ASSOCIATES, LLC**  
7140 Miami Ave., Suite 100  
Cincinnati, Ohio 45243  
(513) 321.2565  
www.juliecromwell.com

SEAL:



NO.	DATE	DESCRIPTION
1	06.30.2025	100% CD BID SET

**DEERFIELD TWP  
STREETSCAPE -  
HILLSLOPE + I-71  
SOUTH EXIT RAMP**  
DEERFIELD TOWNSHIP, OHIO

PROJECT NO: **230146.002**

DATE: **06.30.2025**

SCALE:

SHEET NAME:

**SPECIFICATIONS**

SHEET NO.

**L302**



PLANTS SPECIFICATION, CONT.

TREE, SHRUB, AND VINE PLANTING

INSPECTION: AT TIME OF PLANTING, VERIFY THAT ROOT FLARE IS VISIBLE AT TOP OF ROOT BALL. ACCORDING TO ANSI Z60.1. IF ROOT FLARE IS NOT VISIBLE, REMOVE SOIL IN A LEVEL MANNER FROM THE ROOT BALL TO WHERE THE TOP-MOST ROOT EMERGES FROM THE TRUNK. AFTER SOIL REMOVAL TO EXPOSE THE ROOT FLARE, VERIFY THAT ROOT BALL STILL MEETS SIZE REQUIREMENTS.

ROOTS: REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS. REMOVE INJURED ROOTS BY CUTTING CLEANLY; DO NOT BREAK.

BALLED AND BURLAPPED STOCK: SET EACH PLANT PLUMB AND IN CENTER OF PLANTING PIT OR TRENCH WITH ROOT FLARE 1 INCH ABOVE ADJACENT FINISH GRADES.

1. BACKFILL: PLANTING SOIL PER PLANTING SOILS SPECIFICATION.
2. AFTER PLACING SOME BACKFILL AROUND ROOT BALL TO STABILIZE PLANT, CAREFULLY CUT AND REMOVE BURLAP, ROPE, AND WIRE BASKETS FROM TOPS OF ROOT BALLS AND FROM SIDES, BUT DO NOT REMOVE FROM UNDER ROOT BALLS. REMOVE PALLETS, IF ANY, BEFORE SETTING. DO NOT USE PLANTING STOCK IF ROOT BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATION.
3. BACKFILL AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE SOIL AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PLANTING PIT IS APPROXIMATELY ONE-HALF FILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS ABSORBED.
4. CONTINUE BACKFILLING PROCESS. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF SOIL.

CONTAINER-GROWN STOCK: SET EACH PLANT PLUMB AND IN CENTER OF PLANTING PIT OR TRENCH WITH ROOT FLARE 1 INCH ABOVE ADJACENT FINISH GRADES.

1. BACKFILL: PLANTING SOIL PER PLANTING SOILS SPECIFICATION.
2. CAREFULLY REMOVE ROOT BALL FROM CONTAINER WITHOUT DAMAGING ROOT BALL OR PLANT.
3. BACKFILL AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE SOIL AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PLANTING PIT IS APPROXIMATELY ONE-HALF FILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS ABSORBED.
4. CONTINUE BACKFILLING PROCESS. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF SOIL.

SLOPES: WHEN PLANTING ON SLOPES, SET THE PLANT SO THE ROOT FLARE ON THE UPHILL SIDE IS FLUSH WITH THE SURROUNDING SOIL ON THE SLOPE; THE EDGE OF THE ROOT BALL ON THE DOWNHILL SIDE WILL BE ABOVE THE SURROUNDING SOIL. APPLY ENOUGH SOIL TO COVER THE DOWNHILL SIDE OF THE ROOT BALL.

MECHANIZED TREE-SPADE PLANTING

1. TREES MAY BE PLANTED WITH AN APPROVED MECHANIZED TREE SPADE AT THE DESIGNATED LOCATIONS. DO NOT USE TREE SPADE TO MOVE TREES LARGER THAN THE MAXIMUM SIZE ALLOWED FOR A SIMILAR FIELD-GROWN, BALLED-AND-BURLAPPED ROOT-BALL DIAMETER ACCORDING TO ANSI Z60.1, OR LARGER THAN MANUFACTURER'S MAXIMUM SIZE RECOMMENDATION FOR THE TREE SPADE BEING USED, WHICHEVER IS SMALLER.
2. USE THE SAME TREE SPADE TO EXCAVATE THE PLANTING HOLE AS WILL BE USED TO EXTRACT AND TRANSPORT THE TREE.
3. WHEN EXTRACTING THE TREE, CENTER THE TRUNK WITHIN THE TREE SPADE AND MOVE TREE WITH A SOLID BALL OF EARTH.
4. CUT EXPOSED ROOTS CLEANLY DURING TRANSPLANTING OPERATIONS.
5. PLANT TREES FOLLOWING PROCEDURES IN "TREE, SHRUB, AND VINE PLANTING" ARTICLE.
6. WHERE POSSIBLE, ORIENT THE TREE IN THE SAME DIRECTION AS IN ITS ORIGINAL LOCATION.

TREE, SHRUB, AND VINE PRUNING

1. REMOVE ONLY DEAD, DYING, OR BROKEN BRANCHES. DO NOT PRUNE FOR SHAPE.
2. DO NOT APPLY PRUNING PAINT TO WOUNDS.

GROUND COVER AND PLANT PLANTING

1. SET OUT AND SPACE GROUND COVER AND PLANTS OTHER THAN TREES, SHRUBS, AND VINES AS INDICATED ON DRAWINGS IN EVEN ROWS WITH TRIANGULAR SPACING.
2. USE PLANTING SOIL PER PLANTING SOIL SPECIFICATION FOR BACKFILL.
3. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS.
4. FOR ROOTED CUTTING PLANTS SUPPLIED IN FLATS, PLANT EACH IN A MANNER THAT MINIMALLY DISTURBS THE ROOT SYSTEM BUT TO A DEPTH NOT LESS THAN TWO NODES.
5. WORK SOIL AROUND ROOTS TO ELIMINATE AIR POCKETS AND LEAVE A SLIGHT SAUCER INDENTATION AROUND PLANTS TO HOLD WATER.
6. WATER THOROUGHLY AFTER PLANTING, TAKING CARE NOT TO COVER PLANT CROWNS WITH WET SOIL.
7. PROTECT PLANTS FROM HOT SUN AND WIND; REMOVE PROTECTION IF PLANTS SHOW EVIDENCE OF RECOVERY FROM TRANSPLANTING SHOCK.

PLANTING AREA MULCHING

MULCH BACKFILLED SURFACES OF PLANTING AREAS AND OTHER AREAS INDICATED.

1. TREES IN TURF AREAS: APPLY ORGANIC MULCH RING OF 2-INCH AVERAGE THICKNESS, WITH 18-INCH RADIUS AROUND TRUNKS OR STEMS. DO NOT PLACE MULCH WITHIN 3 INCHES OF TRUNKS OR STEMS.
2. ORGANIC MULCH IN PLANTING AREAS: APPLY 2-INCH AVERAGE THICKNESS OF ORGANIC MULCH OVER WHOLE SURFACE OF PLANTING AREA, AND FINISH LEVEL WITH ADJACENT FINISH GRADES. DO NOT PLACE MULCH WITHIN 3 INCHES OF TRUNKS OR STEMS.

EDGING INSTALLATION

SHOVEL-CUT EDGING: SEPARATE MULCHED AREAS FROM TURF AREAS, CURBS, AND PAVING WITH A 45-DEGREE, 4- TO 6-INCH-DEEP, SHOVEL-CUT EDGE.

INSTALLING SLOW-RELEASE WATERING DEVICE

1. PROVIDE ONE DEVICE FOR EACH TREE.
2. PLACE DEVICE ON TOP OF THE MULCH AT BASE OF TREE STEM AND FILL WITH WATER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

PLANT MAINTENANCE

1. MAINTAIN PLANTINGS BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, MULCHING, RESTORING PLANTING SAUCERS, ADJUSTING AND REPAIRING TREE-STABILIZATION DEVICES, RESETTING TO PROPER GRADES OR VERTICAL POSITION, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS.
2. FILL IN, AS NECESSARY, SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MULCH MATERIALS DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
3. APPLY TREATMENTS AS REQUIRED TO KEEP PLANT MATERIALS, PLANTED AREAS, AND SOILS FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHEN POSSIBLE TO MINIMIZE USE OF PESTICIDES AND REDUCE HAZARDS. TREATMENTS INCLUDE PHYSICAL CONTROLS SUCH AS HOSING OFF FOLIAGE, MECHANICAL CONTROLS SUCH AS TRAPS, AND BIOLOGICAL CONTROL AGENTS.
4. ORNAMENTAL GRASSES SHALL BE CUT BACK IN EARLY SPRING.

PESTICIDE APPLICATION

1. APPLY PESTICIDES AND OTHER CHEMICAL PRODUCTS AND BIOLOGICAL CONTROL AGENTS ACCORDING TO AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S WRITTEN RECOMMENDATIONS. COORDINATE APPLICATIONS WITH OWNER'S OPERATIONS AND OTHERS IN PROXIMITY TO THE WORK. NOTIFY OWNER BEFORE EACH APPLICATION IS PERFORMED.
2. PRE-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE): APPLY TO TREE, SHRUB, AND GROUND-COVER AREAS ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS. DO NOT APPLY TO SEEDED AREAS.
3. POST-EMERGENT HERBICIDES (SELECTIVE AND NONSELECTIVE): APPLY ONLY AS NECESSARY TO TREAT ALREADY-GERMINATED WEEDS AND ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS.

REPAIR AND REPLACEMENT

GENERAL: REPAIR OR REPLACE EXISTING OR NEW TREES AND OTHER PLANTS THAT ARE DAMAGED BY CONSTRUCTION OPERATIONS, IN A MANNER APPROVED BY ARCHITECT.

1. SUBMIT DETAILS OF PROPOSED PRUNING AND REPAIRS.
2. PERFORM REPAIRS OF DAMAGED TRUNKS, BRANCHES, AND ROOTS WITHIN 24 HOURS, IF APPROVED.
3. REPLACE TREES AND OTHER PLANTS THAT CANNOT BE REPAIRED AND RESTORED TO FULL-GROWTH STATUS, AS DETERMINED BY ARCHITECT.

REMOVE AND REPLACE TREES THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION BEFORE THE END OF THE CORRECTIONS PERIOD OR ARE DAMAGED DURING CONSTRUCTION OPERATIONS THAT ARCHITECT DETERMINES ARE INCAPABLE OF RESTORING TO NORMAL GROWTH PATTERN.

1. PROVIDE NEW PLANTS OF SAME SIZE AND SPECIES AS THOSE BEING REPLACED.

CLEANING AND PROTECTION

1. DURING PLANTING, KEEP ADJACENT PAVING AND CONSTRUCTION CLEAN AND WORK AREA IN AN ORDERLY CONDITION. CLEAN WHEELS OF VEHICLES BEFORE LEAVING SITE TO AVOID TRACKING SOIL ONTO ROADS, WALKS, OR OTHER PAVED AREAS.
2. REMOVE SURPLUS SOIL AND WASTE MATERIAL INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
3. PROTECT PLANTS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS AND OPERATIONS OF OTHER CONTRACTORS AND TRADES. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED PLANTINGS.
4. AFTER INSTALLATION AND BEFORE PROJECT COMPLETION, REMOVE NURSERY TAGS, NURSERY STAKES, TIE TAPE, LABELS, WIRE, BURLAP, AND OTHER DEBRIS FROM PLANT MATERIAL, PLANTING AREAS, AND PROJECT SITE.
5. AT TIME OF SUBSTANTIAL COMPLETION, VERIFY THAT TREE-WATERING DEVICES ARE IN GOOD WORKING ORDER AND LEAVE THEM IN PLACE. REPLACE IMPROPERLY FUNCTIONING DEVICES.

MAINTENANCE SERVICE

MAINTENANCE SERVICE FOR PLANTS: PROVIDE MAINTENANCE BY SKILLED EMPLOYEES OF LANDSCAPE INSTALLER. MAINTAIN AS REQUIRED IN "PLANT MAINTENANCE" ARTICLE. BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTS ARE INSTALLED AND CONTINUE UNTIL PLANTINGS ARE ACCEPTABLY HEALTHY AND WELL ESTABLISHED, BUT FOR NOT LESS THAN MAINTENANCE PERIOD BELOW:

1. MAINTENANCE PERIOD: 12 MONTHS FROM DATE OF SUBSTANTIAL COMPLETION.

UNIT MASONRY SPECIFICATIONS

GENERAL: THE WORK IN THIS SECTION OF THE SPECIFICATIONS CONSISTS OF FURNISHING LABOR, MATERIALS, APPLIANCES, TOOLS AND EQUIPMENT TO FURNISH AND INSTALL UNIT MASONRY AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.

ACTION SUBMITTALS:

PRODUCT DATA: FOR EACH TYPE OF PRODUCT.

SHOP DRAWINGS:

1. MASONRY UNITS: SHOW SIZES, PROFILES, COURSING, AND LOCATIONS OF SPECIAL SHAPES.
2. REINFORCING STEEL: DETAIL BENDING, LAP LENGTHS, AND PLACEMENT OF UNIT MASONRY REINFORCING BARS. COMPLY WITH ACI 315.

SAMPLES FOR INITIAL SELECTION:

1. BRICK VENEER.
2. CAST STONE.
3. WEEP HOLES/CAVITY VENTS.

INFORMATIONAL SUBMITTALS:

1. LIST OF MATERIALS USED IN CONSTRUCTING MOCKUPS: LIST GENERIC PRODUCT NAMES TOGETHER WITH MANUFACTURERS, MANUFACTURERS' PRODUCT NAMES, MODEL NUMBERS, LOT NUMBERS, BATCH NUMBERS, SOURCE OF SUPPLY, AND OTHER INFORMATION AS REQUIRED TO IDENTIFY MATERIALS USED. INCLUDE MIX PROPORTIONS FOR MORTAR AND GROUT AND SOURCE OF AGGREGATES.
2. SUBMITTAL IS FOR INFORMATION ONLY. RECEIPT OF LIST DOES NOT CONSTITUTE APPROVAL OF DEVIATIONS FROM THE CONTRACT DOCUMENTS UNLESS SUCH DEVIATIONS ARE SPECIFICALLY BROUGHT TO THE ATTENTION OF ARCHITECT AND APPROVED IN WRITING.

MATERIAL CERTIFICATES: FOR EACH TYPE AND SIZE OF THE FOLLOWING:

1. MASONRY UNITS.
2. INTEGRAL WATER REPELLANT USED IN CMUS.
3. CEMENTITIOUS MATERIALS. INCLUDE NAME OF MANUFACTURER, BRAND NAME, AND TYPE.
4. MORTAR ADMIXTURES.
5. PREBLENDED, DRY MORTAR MIXES. INCLUDE DESCRIPTION OF TYPE AND PROPORTIONS OF INGREDIENTS.
6. GROUT MIXES. INCLUDE DESCRIPTION OF TYPE AND PROPORTIONS OF INGREDIENTS.
7. JOINT REINFORCEMENT.
8. ANCHORS, TIES, AND METAL ACCESSORIES.

MIX DESIGNS: FOR EACH TYPE OF MORTAR AND GROUT. INCLUDE DESCRIPTION OF TYPE AND PROPORTIONS OF INGREDIENTS.

1. INCLUDE TEST REPORTS FOR MORTAR MIXES REQUIRED TO COMPLY WITH PROPERTY SPECIFICATION. TEST ACCORDING TO ASTM C 109/C 109M FOR COMPRESSIVE STRENGTH, ASTM C 1506 FOR WATER RETENTION, AND ASTM C 91/C 91M FOR AIR CONTENT.
2. INCLUDE TEST REPORTS, ACCORDING TO ASTM C 1019, FOR GROUT MIXES REQUIRED TO COMPLY WITH COMPRESSIVE STRENGTH REQUIREMENT.

STATEMENT OF COMPRESSIVE STRENGTH OF MASONRY: FOR EACH COMBINATION OF MASONRY UNIT TYPE AND MORTAR TYPE, PROVIDE STATEMENT OF AVERAGE NET-AREA COMPRESSIVE STRENGTH OF MASONRY UNITS, MORTAR TYPE, AND RESULTING NET-AREA COMPRESSIVE STRENGTH OF MASONRY DETERMINED ACCORDING TO TMS 602/ACI 530.1/ASCE 6.

COLD-WEATHER AND HOT-WEATHER PROCEDURES: DETAILED DESCRIPTION OF METHODS, MATERIALS, AND EQUIPMENT TO BE USED TO COMPLY WITH REQUIREMENTS.

QUALITY ASSURANCE:

MOCKUPS: BUILD MOCKUPS TO VERIFY SELECTIONS MADE UNDER SAMPLE SUBMITTALS, TO DEMONSTRATE AESTHETIC EFFECTS, AND TO SET QUALITY STANDARDS FOR MATERIALS AND EXECUTION.

1. BUILD MOCKUPS FOR EACH TYPE OF EXPOSED UNIT MASONRY CONSTRUCTION IN SIZES APPROXIMATELY 48 INCHES LONG BY FULL HEIGHT AND WIDTH OF WALL, INCLUDING FACE AND BACKUP WYTHES AND ACCESSORIES.
2. WHERE MASONRY IS TO MATCH EXISTING, ERECT MOCKUPS ADJACENT AND PARALLEL TO EXISTING SURFACE.
3. CLEAN EXPOSED FACES OF MOCKUPS WITH MASONRY CLEANER AS INDICATED.
4. PROTECT ACCEPTED MOCKUPS FROM THE ELEMENTS WITH WEATHER-RESISTANT MEMBRANE.
5. APPROVAL OF MOCKUPS IS FOR COLOR, TEXTURE, AND BLENDING OF MASONRY UNITS; RELATIONSHIP OF MORTAR AND SEALANT COLORS TO MASONRY UNIT COLORS; TOOLING OF JOINTS; AND AESTHETIC QUALITIES OF WORKMANSHIP.
  - a. APPROVAL OF MOCKUPS IS ALSO FOR OTHER MATERIAL AND CONSTRUCTION QUALITIES SPECIFICALLY APPROVED BY ARCHITECT IN WRITING.
  - b. APPROVAL OF MOCKUPS DOES NOT CONSTITUTE APPROVAL OF DEVIATIONS FROM THE CONTRACT DOCUMENTS CONTAINED IN MOCKUPS UNLESS ARCHITECT SPECIFICALLY APPROVES SUCH DEVIATIONS IN WRITING.
6. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.

DELIVERY, STORAGE, AND HANDLING:

STORE MASONRY UNITS ON ELEVATED PLATFORMS IN A DRY LOCATION. IF UNITS ARE NOT STORED IN AN ENCLOSED LOCATION, COVER TOPS AND SIDES OF STACKS WITH WATERPROOF SHEETING, SECURELY TIED. IF UNITS BECOME WET, DO NOT INSTALL UNTIL THEY ARE DRY.

STORE CEMENTITIOUS MATERIALS ON ELEVATED PLATFORMS, UNDER COVER, AND IN A DRY LOCATION. DO NOT USE CEMENTITIOUS MATERIALS THAT HAVE BECOME DAMP.

STORE AGGREGATES WHERE GRADING AND OTHER REQUIRED CHARACTERISTICS CAN BE MAINTAINED AND CONTAMINATION AVOIDED.

DELIVER PREBLENDED, DRY MORTAR MIX IN MOISTURE-RESISTANT CONTAINERS. STORE PREBLENDED, DRY MORTAR MIX IN DELIVERY CONTAINERS ON ELEVATED PLATFORMS IN A DRY LOCATION OR IN COVERED WEATHERPROOF DISPENSING SILOS.

STORE MASONRY ACCESSORIES, INCLUDING METAL ITEMS, TO PREVENT CORROSION AND ACCUMULATION OF DIRT AND OIL.

FIELD CONDITIONS

PROTECTION OF MASONRY: DURING CONSTRUCTION, COVER TOPS OF WALLS, PROJECTIONS, AND SILLS WITH WATERPROOF SHEETING AT END OF EACH DAY'S WORK. COVER PARTIALLY COMPLETED MASONRY WHEN CONSTRUCTION IS NOT IN PROGRESS.

1. EXTEND COVER A MINIMUM OF 24 INCHES DOWN BOTH SIDES OF WALLS, AND HOLD COVER SECURELY IN PLACE.
2. STAIN PREVENTION: PREVENT GROUT, MORTAR, AND SOIL FROM STAINING THE FACE OF MASONRY TO BE LEFT EXPOSED OR PAINTED. IMMEDIATELY REMOVE GROUT, MORTAR, AND SOIL THAT COME IN CONTACT WITH SUCH MASONRY.
3. PROTECT BASE OF WALLS FROM RAIN-SPLASHED MUD AND FROM MORTAR SPLATTER BY SPREADING COVERINGS ON GROUND AND OVER WALL SURFACE.
4. PROTECT SILLS, LEDGES, AND PROJECTIONS FROM MORTAR DROPPINGS.
5. PROTECT SURFACES OF WINDOW AND DOOR FRAMES, AS WELL AS SIMILAR PRODUCTS WITH PAINTED AND INTEGRAL FINISHES, FROM MORTAR DROPPINGS.
6. TURN SCAFFOLD BOARDS NEAR THE WALL ON EDGE AT THE END OF EACH DAY TO PREVENT RAIN FROM SPLASHING MORTAR AND DIRT ONTO COMPLETED MASONRY.
7. COLD-WEATHER REQUIREMENTS: DO NOT USE FROZEN MATERIALS OR MATERIALS MIXED OR COATED WITH ICE OR FROST. DO NOT BUILD ON FROZEN SUBSTRATES. REMOVE AND REPLACE UNIT MASONRY DAMAGED BY FROST OR BY FREEZING CONDITIONS. COMPLY WITH COLD-WEATHER CONSTRUCTION REQUIREMENTS CONTAINED IN TMS 602/ACI 530.1/ASCE 6.
8. COLD-WEATHER CLEANING: USE LIQUID CLEANING METHODS ONLY WHEN AIR TEMPERATURE IS 40 DEG F AND HIGHER AND WILL REMAIN SO UNTIL MASONRY HAS DRIED, BUT NOT LESS THAN SEVEN DAYS AFTER COMPLETING CLEANING.
9. HOT-WEATHER REQUIREMENTS: COMPLY WITH HOT-WEATHER CONSTRUCTION REQUIREMENTS CONTAINED IN TMS 602/ACI 530.1/ASCE 6.

PRODUCTS:

SOURCE LIMITATIONS FOR MASONRY UNITS: OBTAIN EXPOSED MASONRY UNITS OF A UNIFORM TEXTURE AND COLOR, OR A UNIFORM BLEND WITHIN THE RANGES ACCEPTED FOR THESE CHARACTERISTICS, FROM SINGLE SOURCE FROM SINGLE MANUFACTURER FOR EACH PRODUCT REQUIRED.

SOURCE LIMITATIONS FOR MORTAR MATERIALS: OBTAIN MORTAR INGREDIENTS OF A UNIFORM QUALITY, INCLUDING COLOR FOR EXPOSED MASONRY, FROM SINGLE MANUFACTURER FOR EACH CEMENTITIOUS COMPONENT AND FROM SINGLE SOURCE OR PRODUCER FOR EACH AGGREGATE.

UNIT MASONRY:

MASONRY STANDARD: COMPLY WITH TMS 602/ACI 530.1/ASCE 6, EXCEPT AS MODIFIED BY REQUIREMENTS IN THE CONTRACT DOCUMENTS.

DEFECTIVE UNITS: REFERENCED MASONRY UNIT STANDARDS MAY ALLOW A CERTAIN PERCENTAGE OF UNITS TO CONTAIN CHIPS, CRACKS, OR OTHER DEFECTS EXCEEDING LIMITS STATED. DO NOT USE UNITS WHERE SUCH DEFECTS ARE EXPOSED IN THE COMPLETED WORK.

CONCRETE MASONRY UNITS:

SHAPES: PROVIDE SHAPES INDICATED AND AS FOLLOWS, WITH EXPOSED SURFACES MATCHING EXPOSED FACES OF ADJACENT UNITS UNLESS OTHERWISE INDICATED.

1. PROVIDE SPECIAL SHAPES FOR LINTELS, CORNERS, JAMBS, SASHES, MOVEMENT JOINTS, HEADERS, BONDING, AND OTHER SPECIAL CONDITIONS.
2. PROVIDE SQUARE-EDGED UNITS FOR OUTSIDE CORNERS UNLESS OTHERWISE INDICATED.

CMUS: ASTM C 90.

1. DENSITY CLASSIFICATION: NORMAL WEIGHT.
2. SIZE (WIDTH): MANUFACTURED TO DIMENSIONS 3/8 INCH LESS THAN NOMINAL DIMENSIONS.

BRICK VENEER:

1. BASIS OF DESIGN: MODULAR CAROLINA ROSE BY THE BELDEN BRICK COMPANY, OR APPROVED EQUAL. P.O. BOX 20910 CANTON, OHIO 44701. PHONE: 330-456-0031. MATCH BRICK TO EXISTING WALLS. PROVIDE SAMPLES OF BRICK FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT.

WALL COPING:

1. BASIS OF DESIGN: CUSTOM CAST STONE BEVELED WALL COPING 3" H X 18" W X 24" L; PRODUCT ID: WCBV-3 OR APPROVED EQUAL. COLOR TO BE LIGHT BUFF. MATCH DIMENSIONS AND FINISH OF EXISTING CAPS. PROVIDE SAMPLES OF WALL COPING FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT.

WALL BANDING:

1. BASIS OF DESIGN: CUSTOM CAST STONE BULLNOSE WALL BANDING 2" H X 5" W X 24" L; PRODUCT ID: BNDBN-2S, OR APPROVED EQUAL. COLOR TO BE LIGHT BUFF. MATCH FINISH OF EXISTING CAPS. PROVIDE SAMPLES OF WALL BANDING FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT.

STONE VENEER:

1. BASIS OF DESIGN: CUSTOM CAST STONE SMOOTH MASONRY VENEER 16" H X 4" W X 24" L; PRODUCT ID: CCS-116, OR APPROVED EQUAL. COLOR TO BE LIGHT BUFF. MATCH FINISH OF EXISTING CAPS. PROVIDE SAMPLES OF WALL BANDING FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT.

MORTAR AND GROUT MATERIALS:

MANUFACTURER: FLAMINGO-BRIXMENT.

1. PRODUCT: M-10, OR APPROVED EQUAL. MIXED ON SITE TO MATCH EXISTING WALLS.

GENERAL: COMPLYING WITH C 270. TYPES AS FOLLOWS:

1. TYPE M FOR ALL STONE MASONRY, ABOVE AND BELOW GRADE AND IN FLOOD CONDITIONS.
2. TYPE N FOR POINTING ALL STONE WORK EXPOSED TO VIEW.

FACTORY BLENDED AND DELIVERED TO THE SITE.

1. GENERAL: COMPLYING WITH ASTM C 1142, FACTORY BLENDED. TYPES AS FOLLOWS:
  - a. TYPE RS ALL CONDITIONS ABOVE GRADE EXPOSED TO VIEW EXCEPT AS FOLLOWS:
  - b. TYPE RM FOR BELOW GRADE CONDITIONS.

PIGMENTS: CHEMICALLY INERT SYNTHETIC IRON OXIDE PIGMENTS, LIGHTFAST, WEATHER RESISTANT, COMPLYING WITH ASTM C 979

1. MORTAR COLOR: AS SELECTED BY LANDSCAPE ARCHITECT FROM MANUFACTURER'S FULL RANGE OF STANDARD COLORS.

AGGREGATE FOR MORTAR: ASTM C 144.


1. FOR MORTAR THAT IS EXPOSED TO VIEW, USE WASHED AGGREGATE CONSISTING OF NATURAL SAND OR CRUSHED STONE.
2. FOR JOINTS LESS THAN 1/4 INCH THICK, USE AGGREGATE GRADED WITH 100 PERCENT PASSING THE NO. 16 SIEVE.
3. WHITE-MORTAR AGGREGATES: NATURAL WHITE SAND OR CRUSHED WHITE STONE.
4. COLORED-MORTAR AGGREGATES: NATURAL SAND OR CRUSHED STONE OF COLOR NECESSARY TO PRODUCE REQUIRED MORTAR COLOR.

AGGREGATE FOR GROUT: ASTM C 404.

WATER: POTABLE.

TIES AND ANCHORS:

GENERAL: TIES AND ANCHORS SHALL EXTEND AT LEAST 1-1/2 INCHES INTO VENEER BUT WITH AT LEAST A 5/8-INCH COVER ON OUTSIDE FACE.




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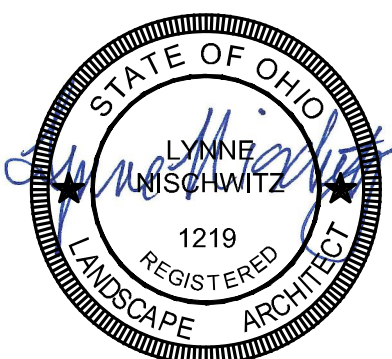
**Deerfield Township**

EST. 1803



JULIE CROMWELL & ASSOCIATES, LLC  
7140 Miami Ave., Suite 100  
Cincinnati, Ohio 45243  
(513) 321.2555  
www.juliecromwell.com

SEAL:



NO.	DATE	DESCRIPTION
1	06.30.2025	100% CD BID SET

**DEERFIELD TWP  
STREETSCAPE -  
HILLSLOPE + I-71  
SOUTH EXIT RAMP**

**DEERFIELD TOWNSHIP, OHIO**

PROJECT NO: **230146.002**

DATE: **06.30.2025**

SCALE:

SHEET NAME:

**SPECIFICATIONS**

SHEET NO.

**L303**



UNIT MASONRY SPECIFICATIONS (CONT.)

- MATERIALS: PROVIDE TIES AND ANCHORS SPECIFIED IN THIS ARTICLE THAT ARE MADE FROM MATERIALS THAT COMPLY WITH THE FOLLOWING UNLESS OTHERWISE INDICATED:
- HOT-DIP GALVANIZED, CARBON-STEEL WIRE: ASTM A 82/A 82M, WITH ASTM A 153/A 153M, CLASS B-2 COATING.
  - STEEL SHEET, GALVANIZED AFTER FABRICATION: ASTM A 1008/A 1008M, COMMERCIAL STEEL, WITH ASTM A 153/A 153M, CLASS B COATING.
  - STEEL PLATES, SHAPES, AND BARS: ASTM A 36/A 36M.

INDIVIDUAL WIRE TIES: RECTANGULAR UNITS WITH CLOSED ENDS AND NOT LESS THAN 4 INCHES WIDE.

- Z-SHAPED TIES WITH ENDS BENT 90 DEGREES TO PROVIDE HOOKS NOT LESS THAN 2 INCHES LONG MAY BE USED FOR MASONRY CONSTRUCTED FROM SOLID UNITS.

- ADJUSTABLE MASONRY-VENEER ANCHORS:
- GENERAL: PROVIDE ANCHORS THAT ALLOW VERTICAL ADJUSTMENT BUT RESIST A 100-LBF LOAD IN BOTH TENSION AND COMPRESSION PERPENDICULAR TO PLANE OF WALL WITHOUT DEFORMING OR DEVELOPING PLAY IN EXCESS OF 1/16 INCH.
  - FABRICATE SHEET METAL ANCHOR SECTIONS AND OTHER SHEET METAL PARTS FROM 0.105-INCH-THICK STEEL SHEET, GALVANIZED AFTER FABRICATION.
  - FABRICATE WIRE TIES FROM 0.187-INCH-DIAMETER, HOT-DIP GALVANIZED-STEEL WIRE UNLESS OTHERWISE INDICATED.
  - CONTRACTOR'S OPTION: UNLESS OTHERWISE INDICATED, PROVIDE ANY OF THE ADJUSTABLE MASONRY-VENEER ANCHORS SPECIFIED.

EMBEDDED FLASHING MATERIALS:

THROUGH-WALL FLASHING SHALL BE A SURFACE MOUNTED FLASHING, 40-MIL THICKNESS COMPOSITE MEMBRANE WITH ADHESIVE BACKING, MEMBRANE SHALL BE POLYETHYLENE SHEET MADE FROM MINIMUM 45% RECYCLED MATERIAL. MEMBRANE ADHESIVE SHALL BE FACTORY-LAMINATED WITH REMOVABLE RELEASE PAPER. PROVIDE COMPATIBLE PRIMERS AND ACCESSORIES.

- MISCELLANEOUS MASONRY ACCESSORIES:
- WEEP/CAVITY VENT PRODUCTS: USE THE FOLLOWING UNLESS OTHERWISE INDICATED:
- ROUND PLASTIC WEEP/VENT TUBING: MEDIUM-DENSITY POLYETHYLENE, 3/8-INCH OD.

- CAVITY DRAINAGE MATERIAL: FREE-DRAINING MESH, MADE FROM POLYMER STRANDS THAT WILL NOT DEGRADE WITHIN THE WALL CAVITY.
- CONFIGURATION: PROVIDE ONE OF THE FOLLOWING:
    - STRIPS, FULL DEPTH OF CAVITY AND 10 INCHES HIGH, WITH DOVETAIL-SHAPED NOTCHES 7 INCHES DEEP THAT PREVENT CLOGGING WITH MORTAR DROPPINGS.
    - SHEETS OR STRIPS, FULL DEPTH OF CAVITY AND INSTALLED TO FULL HEIGHT OF CAVITY.

MASONRY CLEANERS:

PROPRIETARY ACIDIC CLEANER: MANUFACTURER'S STANDARD-STRENGTH CLEANER DESIGNED FOR REMOVING MORTAR/GROUT STAINS, EFFLORESCENCE, AND OTHER NEW CONSTRUCTION STAINS FROM NEW MASONRY WITHOUT DISCOLORING OR DAMAGING MASONRY SURFACES. USE PRODUCT EXPRESSLY APPROVED FOR INTENDED USE BY CLEANER MANUFACTURER AND MANUFACTURER OF MASONRY UNITS BEING CLEANED.

- MORTAR AND GROUT MIXES:
- MIX MORTAR IN ACCORDANCE WITH THE PROPORTION REQUIREMENTS OF ASTM C 270 AND ASTM C 476 AS APPLICABLE. CONTROL BATCHING PROCEDURE TO ENSURE PROPER PROPORTIONS BY MEASURING MATERIALS BY VOLUME. THE MASON SHALL CONTROL AMOUNT OF MIXING WATER AND MORTAR CONSISTENCY.
- ADD MORTAR COLOR AND ADMIXTURES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE UNIFORMITY OF MIX AND COLORATION.
  - DO NOT USE ANTI-FREEZE COMPOUNDS TO LOWER THE FREEZING POINT OF MORTAR OR GROUT.
  - RETEMPERING WILL BE PERMITTED ONLY WITHIN THE FIRST TWO AND A HALF HOURS OF INITIAL MIX. ANY MORTAR OR GROUT THAT HAS PARTIALLY SET SHALL BE DISCARDED.
  - POURING GROUT SHALL BE FLUID CONSISTENCY (AS FLUID AS POSSIBLE FOR POURING WITHOUT SEPARATION OF CONSTITUENT PARTS) CONFORMING TO ASTM C 476 WITH COMPRESSIVE STRENGTH OF 3000 POUNDS PER SQUARE INCH AT 28 DAYS.
  - PREBLENDED, DRY MORTAR MIX: FURNISH DRY MORTAR INGREDIENTS IN FORM OF A PREBLENDED MIX. MEASURE QUANTITIES BY WEIGHT TO ENSURE ACCURATE PROPORTIONS, AND THOROUGHLY BLEND INGREDIENTS BEFORE DELIVERING TO PROJECT SITE.

- EXECUTION:
- EXAMINE CONDITIONS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK.
- FOR THE RECORD, PREPARE WRITTEN REPORT, ENDORSED BY INSTALLER, LISTING CONDITIONS DETRIMENTAL TO PERFORMANCE OF THE WORK.
  - VERIFY THAT FOUNDATIONS ARE WITHIN TOLERANCES SPECIFIED.
  - VERIFY THAT REINFORCING DOWELS ARE PROPERLY PLACED.
  - VERIFY THAT SUBSTRATES ARE FREE OF SUBSTANCES THAT IMPAIR MORTAR BOND.

BEFORE INSTALLATION, EXAMINE ROUGH-IN AND BUILT-IN CONSTRUCTION FOR PIPING SYSTEMS TO VERIFY ACTUAL LOCATIONS OF PIPING CONNECTIONS.

PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

INSTALLATION:

THICKNESS: BUILD CAVITY AND COMPOSITE WALLS AND OTHER MASONRY CONSTRUCTION TO FULL THICKNESS SHOWN. BUILD SINGLE-WYTHE WALLS TO ACTUAL WIDTHS OF MASONRY UNITS, USING UNITS OF WIDTHS INDICATED.

BUILD CHASES AND RECESSES TO ACCOMMODATE ITEMS SPECIFIED IN THIS AND OTHER SECTIONS.

LEAVE OPENINGS FOR EQUIPMENT TO BE INSTALLED BEFORE COMPLETING MASONRY. AFTER INSTALLING EQUIPMENT, COMPLETE MASONRY TO MATCH CONSTRUCTION IMMEDIATELY ADJACENT TO OPENING.

USE FULL-SIZE UNITS WITHOUT CUTTING IF POSSIBLE. IF CUTTING IS REQUIRED TO PROVIDE A CONTINUOUS PATTERN OR TO FIT ADJOINING CONSTRUCTION, CUT UNITS WITH MOTOR-DRIVEN SAWS: PROVIDE CLEAN, SHARP, UNCHIPPED EDGES. ALLOW UNITS TO DRY BEFORE LAYING UNLESS WETTING OF UNITS IS SPECIFIED. INSTALL CUT UNITS WITH CUT SURFACES AND, WHERE POSSIBLE, CUT EDGES CONCEALED.

SELECT AND ARRANGE UNITS FOR EXPOSED UNIT MASONRY TO PRODUCE A UNIFORM BLEND OF COLORS AND TEXTURES. MIX UNITS FROM SEVERAL PALLETS OR CUBES AS THEY ARE PLACED.

PATTERNING: AS INDICATED ON DRAWINGS.

- TOLERANCES:
- DIMENSIONS AND LOCATIONS OF ELEMENTS:
- FOR DIMENSIONS IN CROSS SECTION OR ELEVATION, DO NOT VARY BY MORE THAN PLUS 1/2 INCH OR MINUS 1/4 INCH.
  - FOR LOCATION OF ELEMENTS IN PLAN, DO NOT VARY FROM THAT INDICATED BY MORE THAN PLUS OR MINUS 1/2 INCH.
  - FOR LOCATION OF ELEMENTS IN ELEVATION, DO NOT VARY FROM THAT INDICATED BY MORE THAN PLUS OR MINUS 1/4 INCH IN A STORY HEIGHT OR 1/2 INCH TOTAL.

- LINEs AND LEVELS:
- FOR BED JOINTS AND TOP SURFACES OF BEARING WALLS, DO NOT VARY FROM LEVEL BY MORE THAN 1/4 INCH IN 10 FEET, OR 1/2-INCH MAXIMUM.
  - FOR CONSPICUOUS HORIZONTAL LINES, SUCH AS UNTELS, SILLS, PARAPETS, AND REVEALS, DO NOT VARY FROM LEVEL BY MORE THAN 1/8 INCH IN 10 FEET, 1/4 INCH IN 20 FEET, OR 1/2-INCH MAXIMUM.
  - FOR VERTICAL LINES AND SURFACES, DO NOT VARY FROM PLUMB BY MORE THAN 1/4 INCH IN 10 FEET, 3/8 INCH IN 20 FEET, OR 1/2-INCH MAXIMUM.
  - FOR CONSPICUOUS VERTICAL LINES, SUCH AS EXTERNAL CORNERS, DOOR JAMBS, REVEALS, AND EXPANSION AND CONTROL JOINTS, DO NOT VARY FROM PLUMB BY MORE THAN 1/8 INCH IN 10 FEET, 1/4 INCH IN 20 FEET, OR 1/2-INCH MAXIMUM.
  - FOR LINES AND SURFACES, DO NOT VARY FROM STRAIGHT BY MORE THAN 1/4 INCH IN 10 FEET, 3/8 INCH IN 20 FEET, OR 1/2-INCH MAXIMUM.
  - FOR VERTICAL ALIGNMENT OF EXPOSED HEAD JOINTS, DO NOT VARY FROM PLUMB BY MORE THAN 1/4 INCH IN 10 FEET OR 1/2-INCH MAXIMUM.

- JOINTS:
- FOR BED JOINTS, DO NOT VARY FROM THICKNESS INDICATED BY MORE THAN PLUS OR MINUS 1/8 INCH, WITH A MAXIMUM THICKNESS LIMITED TO 1/2 INCH.
  - FOR EXPOSED BED JOINTS, DO NOT VARY FROM BED-JOINT THICKNESS OF ADJACENT COURSES BY MORE THAN 1/8 INCH.
  - FOR HEAD AND COLLAR JOINTS, DO NOT VARY FROM THICKNESS INDICATED BY MORE THAN PLUS 3/8 INCH OR MINUS 1/4 INCH.
  - FOR EXPOSED HEAD JOINTS, DO NOT VARY FROM THICKNESS INDICATED BY MORE THAN PLUS OR MINUS 1/8 INCH.
  - FOR EXPOSED BED JOINTS AND HEAD JOINTS OF STACKED BOND, DO NOT VARY FROM A STRAIGHT LINE BY MORE THAN 1/16 INCH FROM ONE MASONRY UNIT TO THE NEXT.

UNIT MASONRY:

COMPLY WITH ACI 530/530.1 FOR UNIT MASONRY.

ERECT ALL UNIT MASONRY WORK IN COMPLIANCE WITH LINE AND LEVEL TOLERANCES SPECIFIED IN THIS SECTION. CORRECT OR REPLACE, AS DIRECTED BY THE LANDSCAPE ARCHITECT, NON-CONFORMING MASONRY WORK AT NO ADDITIONAL COST TO THE OWNER.

LAY NO EXPOSED MASONRY HAVING CHIPPED EDGES OR FACE DEFECTS. REMOVE ANY SUCH UNIT, IF INSTALLED, AND REPLACE WITH AN UNDAMAGED UNIT, AND BEAR ALL COSTS OF THIS WORK.

EXAMINE ALL CONTRACT DOCUMENTS AS TO REQUIREMENTS FOR THE ACCOMMODATION OF WORK OF OTHER TRADES AND CONTRACTORS. TAKE EVERY PRECAUTION TO MINIMIZE CUTTING AND PATCHING. DELIVER INSERTS AND OTHER ANCHORAGE ITEMS REQUIRED TO BE PLACED INTO WALLS IN SUFFICIENT TIME TO PREVENT ANY DELAY IN SUCH WORK. CLOSELY COORDINATE THE LOCATION AND PLACEMENT OF SUCH ITEMS.

THICKNESS: BUILD MASONRY CONSTRUCTION TO THE FULL THICKNESS SHOWN. BUILD SING-WYTHE WALLS TO THE ACTUAL THICKNESS OF THE MASONRY UNITS, USING UNITS OF NOMINAL THICKNESS INDICATED.

LEAVE OPENINGS FOR EQUIPMENT TO BE INSTALLED BEFORE COMPLETION OF MASONRY. AFTER INSTALLATION OF EQUIPMENT, COMPLETE MASONRY TO MATCH CONSTRUCTION IMMEDIATELY ADJACENT TO THE OPENING.

PROTECT ALL MASONRY FROM RAIN PRIOR TO, AND DURING THE INSTALLATION THEREOF. IF AMBIENT TEMPERATURE IS IN EXCESS OF 80 DEGREES FAHRENHEIT AT TIME OF INSTALLATION, LIGHTLY MOISTEN CONTACT SURFACES OF MASONRY UNITS BY BRUSHING WITH WATER.

DO ALL CUTTING AND PATCHING OF MASONRY REQUIRED FOR THE WORK. CUT EXPOSED MASONRY UNITS WITH MORTAR DRIVEN SAWS TO PROVIDE CLEAN, SHARP, UNCHIPPED EDGES. CUT UNITS AS REQUIRED TO PROVIDE CONTINUOUS PATTERN AND TO FIT ADJOINING CONSTRUCTION. USE FULL-SIZE UNITS WITHOUT CUTTING WHERE POSSIBLE.

PROVIDE PROTECTION AGAINST BREAKAGE AND WEATHER DAMAGE TO ALL MASONRY WORK, INCLUDING COVERINGS OVER THE TOPS OF WALLS AND WHEREVER NECESSARY TO PROTECT WORK AT ALL STAGES OF COMPLETION. PROTECT MASONRY AT ALL TIMES WHEN MASONS ARE NOT WORKING ON THE WALLS. APPLY TARPAULINS OR WATERPROOF PAPER PROPERLY WEIGHTED OR NAILED TO ASSURE THEIR REMAINING IN PLACE TO PROTECT MASONRY.

LAY OUT ALL COURSING BEFORE SETTING TO ELIMINATE CUTTING CLOSURES OR JUMPING BOND. DO NOT SPREAD ANY MORE MORTAR THAN CAN BE COVERED BEFORE SURFACE OF MORTAR HAS BEGUN TO DRY. DO NOT ENDANGER BOND OR MORTAR BY MOVING MASONRY WHEN ONCE LAID. IF NECESSARY TO READJUST ANY ITEMS, REMOVE ENTIRELY, CLEAN OFF MORTAR, AND RESET WITH FRESH MORTAR.

PROVIDE AND BUILDING-IN THROUGH -WALL FLASHINGS AT CAPSTONES AND AS INDICATED IN THE DRAWINGS, AS SPECIFIED HEREIN.

- DO NOT ALL FLASHINGS TO PROJECT BEYOND THE FACE OF THE BRICK. CUT OFF FLASHINGS UNTIL THEY REACH THE PROPER POSITION IN THE WYTHE WITHOUT FORMING POCKETS.
- FROM END DAMS AT HORIZONTAL TERMINATIONS, SEAL WATERTIGHT USING FLASHING MANUFACTURER'S RECOMMENDED ADHESIVE AND SEALER.
- AT CAPSTONES, APPLY A HEAVY BED COAT OF COMPATIBLE ADHESIVE MASTIC AND EMBED THROUGH-WALL FLASHING IN THE MASTIC BEFORE LAYING BRICK.
- CLEAN SURFACE OF BRICKWORK SMOOTH AND FREE FROM PROJECTIONS THAT MIGHT PUNCTURE OR OTHERWISE DAMAGE FLASHING MEMBRANE.
- CAREFULLY FIT FLASHING AROUND PROJECTIONS, NEATLY FOLD AND BED IN MASTIC OR MORTAR SO AS TO DIRECT MOISTURE TO THE OUTSIDE. FORM FLASHING TO REQUIRED PROFILES WITHOUT WRINKLES OR BUCKLES AND INSTALL IN SUCH A MANNER AS TO DIRECT MOISTURE TO THE OUTSIDE.

EXCEPT FOR CLEANING DOWN AND RE-POINTING, FINISH ALL MASONRY AS THE WALLS ARE CARRIED UP. TAKE SPECIAL CARE TO AVOID SOILING OR STAINING MASONRY THAT I TO REMAIN EXPOSED IN FINISH WORK.

MORTAR BEDDING AND JOINTING FOR WALLS:

BRICK LAYING: SET BRICK IN FULL BED OF MORTAR WITH ALL VERTICAL JOINTS SLUSHED FULL. APPLY ENOUGH MORTAR AT BED AND END JOINTS TO ALLOW MORTAR TO BE FORCED OUT BOTH SIDES OF THE FACE SHELL. WET BRICK JOINT SURFACES THOROUGHLY BEFORE SETTING. FOR BRICK SURFACES THAT ARE SOILED, CLEAN BEDDING AND EXPOSED SURFACES WITH FIBER BRUSH AND SOAP POWDER AND RINSE THOROUGHLY WITH CLEAR WATER.

CUT JOINTS FLUSH FOR MASONRY WALLS TO BE CONCEALED OR TO BE COVERED BY OTHER MATERIALS, UNLESS OTHERWISE INDICATED.

POINT AND FILL ALL HOLES AND CRACKS IN NEW MORTAR JOINTS WITH ADDITIONAL FRESH MORTAR, DO NOT MERELY SPREAD ADJACENT MORTAR OVER DEFECT OR USE DEAD MORTAR DROPPING. DO ALL POINTING WHILE MORTAR IS STILL SOFT AND PLASTIC. IF HARDENED, CHISEL DEFECT OUT AND REFILL SOLIDLY WITH FRESH ADDITIONAL MORTAR AND TOOL AS SPECIFIED.

- FLASHING, WEEP HOLES, AND CAVITY VENTS:
- INSTALL FLASHING AS FOLLOWS UNLESS OTHERWISE INDICATED:
- PREPARE MASONRY SURFACES SO THEY ARE SMOOTH AND FREE FROM PROJECTIONS THAT COULD PUNCTURE FLASHING. WHERE FLASHING IS WITHIN MORTAR JOINT, PLACE THROUGH-WALL FLASHING ON SLOPING BED OF MORTAR AND COVER WITH MORTAR. BEFORE COVERING WITH MORTAR, SEAL PENETRATIONS IN FLASHING WITH ADHESIVE, SEALANT, OR TAPE AS RECOMMENDED BY FLASHING MANUFACTURER.
  - AT MASONRY-VENEER WALLS, EXTEND FLASHING THROUGH VENEER, ACROSS AIRSPACE BEHIND VENEER, AND UP FACE OF SHEATHING AT LEAST 8 INCHES; WITH UPPER EDGE TUCKED UNDER AIR BARRIER, LAPPING AT LEAST 4 INCHES.
  - CUT FLEXIBLE FLASHING OFF FLUSH WITH FACE OF WALL AFTER MASONRY WALL CONSTRUCTION IS COMPLETED.

INSTALL SINGLE-WYTHE CMU FLASHING SYSTEM IN BED JOINTS OF CMU WALLS WHERE INDICATED TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. INSTALL CMU CELL PANS WITH UPTURNED EDGES LOCATED BELOW FACE SHELLS AND WEBS OF CMUS ABOVE AND WITH WEEP SPOUTS ALIGNED WITH FACE OF WALL. INSTALL CMU WEB COVERS SO THAT THEY COVER UPTURNED EDGES OF CMU CELL PANS AT CMU WEBS AND EXTEND FROM FACE SHELL TO FACE SHELL.

- INSTALL WEEP HOLES IN EXTERIOR WYTHES AND VENEERS IN HEAD JOINTS OF FIRST COURSE OF MASONRY IMMEDIATELY ABOVE EMBEDDED FLASHING.
- USE SPECIFIED WEEP/CAVITY VENT PRODUCTS TO FORM WEEP HOLES.
  - SPACE WEEP HOLES FORMED FROM PLASTIC TUBING 16 INCHES O.C.

PLACE CAVITY DRAINAGE MATERIAL IN AIRSPACE BEHIND VENEERS TO COMPLY WITH CONFIGURATION REQUIREMENTS FOR CAVITY DRAINAGE MATERIAL IN "MISCELLANEOUS MASONRY ACCESSORIES" ARTICLE.

REPAIRING, POINTING, AND CLEANING:

REMOVE AND REPLACE MASONRY UNITS THAT ARE LOOSE, CHIPPED, BROKEN, STAINED, OR OTHERWISE DAMAGED OR THAT DO NOT MATCH ADJOINING UNITS. INSTALL NEW UNITS TO MATCH ADJOINING UNITS; INSTALL IN FRESH MORTAR, POINTED TO ELIMINATE EVIDENCE OF REPLACEMENT.

POINTING: DURING THE TOOLING OF JOINTS, ENLARGE VOIDS AND HOLES, EXCEPT WEEP HOLES, AND COMPLETELY FILL WITH MORTAR. POINT UP JOINTS, INCLUDING CORNERS, OPENINGS, AND ADJACENT CONSTRUCTION, TO PROVIDE A NEAT, UNIFORM APPEARANCE. PREPARE JOINTS FOR SEALANT APPLICATION, WHERE INDICATED.

IN-PROGRESS CLEANING: CLEAN UNIT MASONRY AS WORK PROGRESSES BY DRY BRUSHING TO REMOVE MORTAR FINS AND SMEARS BEFORE TOOLING JOINTS.

- FINAL CLEANING: AFTER MORTAR IS THOROUGHLY SET AND CURED, CLEAN EXPOSED MASONRY AS FOLLOWS:
- REMOVE LARGE MORTAR PARTICLES BY HAND WITH WOODEN PADDLES AND NONMETALLIC SCRAPE HOES OR CHISELS.
  - TEST CLEANING METHODS ON SAMPLE WALL PANEL; LEAVE ONE-HALF OF PANEL UNCLEANED FOR COMPARISON PURPOSES. OBTAIN ARCHITECT'S APPROVAL OF SAMPLE CLEANING BEFORE PROCEEDING WITH CLEANING OF MASONRY.
  - PROTECT ADJACENT MASONRY AND NON-MASONRY SURFACES FROM CONTACT WITH CLEANER BY COVERING THEM WITH LIQUID STRIPPABLE MASKING AGENT OR POLYETHYLENE FILM AND WATERPROOF MASKING TAPE.
  - WET WALL SURFACES WITH WATER BEFORE APPLYING CLEANERS; REMOVE CLEANERS PROMPTLY BY RINSING SURFACES THOROUGHLY WITH CLEAR WATER.
  - CLEAN MASONRY BY BUCKET-AND-BRUSH HAND-CLEANING METHOD DESCRIBED IN BIA TECHNICAL NOTES 20.

MASONRY WASTE DISPOSAL:

SALVAGEABLE MATERIALS: UNLESS OTHERWISE INDICATED, EXCESS MASONRY MATERIALS ARE CONTRACTOR'S PROPERTY. AT COMPLETION OF UNIT MASONRY WORK, REMOVE FROM PROJECT SITE.

MASONRY WASTE RECYCLING: RETURN BROKEN CMUS NOT USED AS FILL TO MANUFACTURER FOR RECYCLING.


EXCESS MASONRY WASTE: REMOVE EXCESS CLEAN MASONRY WASTE THAT CANNOT BE USED AS FILL, AS DESCRIBED ABOVE OR RECYCLED, AND OTHER MASONRY WASTE, AND LEGALLY DISPOSE OF OFF OWNER'S PROPERTY.




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**JULIE CROMWELL & ASSOCIATES, LLC**  
7140 Miami Ave., Suite 100  
Cincinnati, Ohio 45243  
(513) 321.2565  
[www.juliecromwell.com](http://www.juliecromwell.com)

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NO.	DATE	DESCRIPTION
1	06.30.2025	100% CD BID SET

**DEERFIELD TWP  
STREETSCAPE -  
HILLSLOPE + I-71  
SOUTH EXIT RAMP  
DEERFIELD TOWNSHIP, OHIO**

PROJECT NO:	230146.002
DATE:	06.30.2025
SCALE:	

SHEET NAME:

**SPECIFICATIONS**

SHEET NO.

**L304**