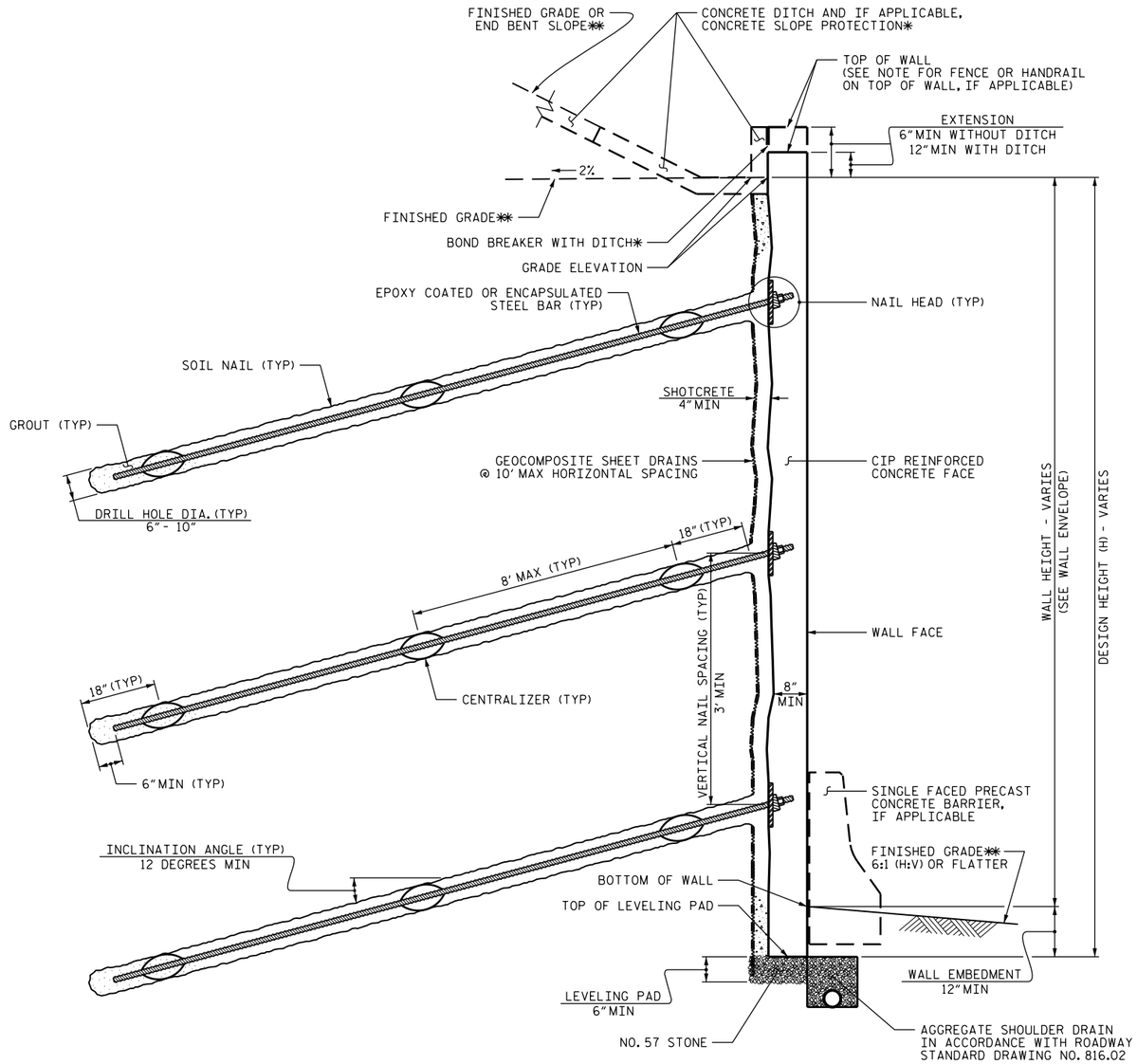

SOIL NAIL WALL - TYPICAL SECTION

*SEE CONCRETE DITCH BEHIND WALL DETAILS.
**SEE PLANS FOR FINISHED GRADE OR END BENT SLOPE DETAILS.

NOTES:

FOR SOIL NAIL RETAINING WALLS, SEE SOIL NAIL RETAINING WALLS PROVISION.

FOR STEEL BEAM GUARDRAIL, SEE ROADWAY PLANS AND SECTION 862 OF THE STANDARD SPECIFICATIONS.

FOR SINGLE FACED PRECAST CONCRETE BARRIER, SEE ROADWAY PLANS AND SECTION 857 OF THE STANDARD SPECIFICATIONS.

A CONCRETE BARRIER RAIL WITH MOMENT SLAB IS REQUIRED ABOVE RETAINING WALL NO. _. SEE PLANS FOR CONCRETE BARRIER RAIL WITH MOMENT SLAB DETAILS.

A FENCE OR HANDRAIL IS REQUIRED ON TOP OF RETAINING WALL NO. _. SEE ROADWAY PLANS FOR FENCE OR HANDRAIL ATTACHMENT DETAILS.

A _____ ARCHITECTURAL FINISH IS REQUIRED FOR THE CIP REINFORCED CONCRETE FACE FOR RETAINING WALL NO. _.

A BRICK VENEER IS REQUIRED FOR RETAINING WALL NO. _ AS SHOWN. SUBMIT BRICK SAMPLES FOR APPROVAL BEFORE BEGINNING SOIL NAIL WALL CONSTRUCTION.

BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO. _, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.

DESIGN RETAINING WALL NO. _ FOR THE FOLLOWING:
1) DESIGN HEIGHT (H) = WALL HEIGHT + WALL EMBEDMENT
2) DESIGN LIFE = 75 or 100 YEARS
3) MINIMUM WALL EMBEDMENT ELEVATION = ___ FT
4) IN-SITU ASSUMED MATERIAL PARAMETERS ABOVE ELEVATION _____ FT:
   - UNIT WEIGHT, γ = ___ PCF
   - FRICTION ANGLE, ϕ = __ DEGREES
   - COHESION, c = ___ PSF
5) IN-SITU ASSUMED MATERIAL PARAMETERS BELOW ELEVATION _____ FT:
   - UNIT WEIGHT, γ = _____ PCF
   - FRICTION ANGLE, ϕ = _____ DEGREES
   - COHESION, c = _____ PSF

THE WALL SITE FOR RETAINING WALL NO. _ LOCATED AT END BENT NO. _ IS CLASSIFIED AS AASHTO SITE CLASS E.

THE MINIMUM WALL EMBEDMENT ELEVATION FOR RETAINING WALL NO. _ INCLUDES EMBEDMENT FOR SCOUR.

DESIGN RETAINING WALL NO. _ FOR A LIVE LOAD (TRAFFIC) SURCHARGE.

DESIGN RETAINING WALL NO. _ FOR THE POINT, LINE or STRIP SURCHARGE LOAD SHOWN.

DESIGN RETAINING WALL NO. _ FOR A PIPE EXTENDING THROUGH THE WALL AS SHOWN. VERIFY PIPE LOCATION AND ELEVATION BEFORE BEGINNING SOIL NAIL WALL DESIGN OR CONSTRUCTION.

FOUNDATIONS FOR SIGNS, LIGHTING or SIGNALS WILL BE LOCATED BEHIND RETAINING WALL NO. _ AND WILL or MAY INTERFERE WITH SOIL NAILS. SUBMIT PROPOSED CONSTRUCTION METHODS FOR THESE FOUNDATIONS WITH THE SOIL NAIL WALL CONSTRUCTION PLAN.

EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES WILL or MAY INTERFERE WITH SOIL NAILS FOR RETAINING WALL NO. _.

FOUNDATIONS FOR END BENT NO. _ LOCATED AT STATION _____ WILL or MAY INTERFERE WITH SOIL NAILS FOR RETAINING WALL NO. _. SEE "FOUNDATION LAYOUT" SHEET FOR FOUNDATION LOCATIONS.

DESIGN RETAINING WALL NO. _ FOR A LATERAL LOAD FROM FOUNDATIONS LOCATED BEHIND THE WALL APPLIED AS A FACTORED UNIFORM PRESSURE OF ___ PSF TO THE BACK OF THE CIP REINFORCED CONCRETE FACE.

"TEMPORARY SHORING" IS or MAY BE REQUIRED FOR RETAINING WALL NO. _ IN ACCORDANCE WITH THE TEMPORARY SHORING PROVISION. SEE ROADWAY, STRUCTURE or TRAFFIC CONTROL PLANS.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT

STD CELL Wall_SoilNail_Typical_Notes

SOIL NAIL WALL
WITH OR WITHOUT BACK SLOPE - TYPICAL & NOTES

DATE: 10-19-21