

UTILITIES NOTES:

1. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES (HORIZONTAL AND VERTICAL) PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL NOTIFY OTHER PUBLIC UTILITIES (GAS, PHONE, ELECTRIC, CABLE TV, WATER, SEWER, ETC.) TO MAKE ALL NECESSARY ADJUSTMENTS TO RESPECTIVE FACILITIES BEFORE START OF CONSTRUCTION OF T-WALL'S LEVELING PAD.
3. ANY EXISTING UTILITIES THAT ARE LOCATED WITHIN THE STEM AREA OF THE T-WALL@ UNITS MUST BE RELOCATED. ALL UTILITIES MUST STAY CLEAR OF T-WALL@ STEM BY 2'-0".
4. T-WALL@ UNIT AND UTILITY CONFLICTS:
 - FIELD CUTTING OF T-WALL@ UNITS TO AVOID UTILITY CONFLICTS (NOT SHOWN ON CONTRACT DRAWINGS) IS PROHIBITED UNTIL IT IS BROUGHT TO THE DESIGNER'S ATTENTION. THE NEEL COMPANY SHALL PROVIDE DIRECTION AND / OR REDESIGN T-WALL@ UNITS TO AVOID CONFLICTS.

SPECIAL NOTES:

1. THESE DRAWINGS WERE PREPARED BASED ON INFORMATION GIVEN IN THE FOLLOWING:
 - CONTRACT DRAWINGS:
 - STATE OF VERMONT, AGENCY OF TRANSPORTATION PROPOSED IMPROVEMENT BRIDGE PROJECT PREPARED BY VHB DATED 7/16/2012
 - CAD DRAWING OF CULVERT FOR BRIDGE 98 PREPARED BY CSI, RECEIVED ELECTRONICALLY ON SEPT 14 2012
 - GEOTECHNICAL REPORT:
 - BASED ON CONTRACT DRAWINGS. NO GEOTECHNICAL REPORT PROVIDED FOR SHOP DRAWINGS.
2. REPORT DISCREPANCIES BETWEEN CONTRACT INFORMATION AND ACTUAL CONDITIONS AS SITE WORK PROGRESSES TO THE NEEL COMPANY FOR REDESIGN. NO LIABILITY IS ACCEPTED FOR INACCURATE INFORMATION SUPPLIED BY OTHERS.
3. THE FOLLOWING ASSUMPTIONS WERE MADE:
 - FOUNDATION IS ABLE TO SUPPORT BEARING PRESSURE SHOWN IN SPECIAL NOTES 4 WITH AN ACCEPTABLE FACTOR OF SAFETY.
4. APPLIED BEARING PRESSURE AT MAXIMUM HEIGHT: ALL WINGWALLS = 3,662 PSF (FACTORED)
5. THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED UPON INFORMATION PROVIDED BY THE OWNER. ON THE BASIS OF THIS INFORMATION, THE NEEL COMPANY HAS DESIGNED, AND IS RESPONSIBLE FOR, THE INTERNAL STABILITY OF THE STRUCTURE ONLY, EXTERNAL STABILITY, INCLUDING FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER.
6. THE NEEL COMPANY HAS NOT PERFORMED GLOBAL STABILITY SETTLEMENT AND BEARING CAPACITY ANALYSIS FOR THE WALL FOUNDATION. THESE ANALYSES WILL BE THE RESPONSIBILITY OF OTHERS.
7. DRAINAGE:
 - THE NEEL COMPANY HAS NOT PERFORMED A DRAINAGE ANALYSIS FOR THIS WALL SITE. IT IS THE OWNER'S RESPONSIBILITY TO ASSURE THAT SURFACE RUN-OFF IS DIVERTED AWAY FROM THE WALL.
8. SELECT BACKFILL GRADATION AND COMPACTION:
 - BACKFILL GRADATION AND COMPACTION BETWEEN STEMS AND AROUND PIPES ARE IMPORTANT TO THE WALL STABILITY. THE OWNER'S GEOTECHNICAL ENGINEER SHOULD PROVIDE SUFFICIENT TESTING TO INSURE COMPLIANCE WITH THE SELECT BACKFILL GRADATION AND COMPACTION SPECIFICATIONS NOTED ON THIS SHEET. PLACEMENT OF LOOSE LIFT OF BACKFILL SHALL NOT EXCEED 12 INCHES.
9. T-WALL@ FACE FORM FINISH:
 - PLAIN STEEL FORM FINISH

GENERAL NOTES:

1. PRIMARY REFERENCE:
 - AASHTO, LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION 2004 (WITH INTERIMS)
2. SELECT BACKFILL BETWEEN STEMS:
 - ANGLE OF INTERNAL FRICTION - 34° (MINIMUM)
 - DENSITY - 120 pcf (MINIMUM)
 - 5% MAXIMUM PASSING #200 SIEVE
 - 100% PASSING 3" SIEVE
 - 95% STANDARD COMPACTION (ASTM D-698)
3. UNCLASSIFIED BACKFILL BEHIND STEMS:
 - ANGLE OF INTERNAL FRICTION - 30°
 - DENSITY - 120 pcf
 - 95% STANDARD COMPACTION (ASTM D-698)
4. HORIZONTAL JOINT:
 - 1/2 INCH ASPHALT EXPANSION JOINT MATERIAL PER ASTM D-994 AS SHOWN ON DEVELOPED ELEVATIONS.
5. VERTICAL JOINT:
 - 3/8 INCH SPACE
 - 12 INCHES WIDE FILTER CLOTH BACKING CENTERED AT JOINT, UNLESS OTHERWISE NOTED.
 - FILTER CLOTH BACKING: MIRAFI 160N OR EQUAL
6. OVERALL DIMENSIONAL TOLERANCES FOR FINISHED WALL:
 - VERTICAL ALIGNMENT (PLUMBNESS) - 3/4 INCH IN 10 FEET
 - HORIZONTAL ALIGNMENT (LINE) - 3/4 INCH IN 10 FEET
7. FOUNDATION:
 - PROOF-ROLL THE FOUNDATION SUBGRADE ALONG THE ENTIRE WALL LENGTH PRIOR TO CONSTRUCTION OF THE T-WALL@. A GEOTECHNICAL ENGINEER MUST INSPECT THE EXCAVATED FOUNDATION SUBGRADE AND PROOF-ROLLING ACTIVITIES. ANY SOFT OR UNSUITABLE MATERIALS IDENTIFIED BY INSPECTION SHALL BE REMOVED AND REPLACED WITH COMPACTED STRUCTURAL BACKFILL AS DIRECTED BY THE ENGINEER. CONTRACTOR TO PROVIDE SUFFICIENT DEWATERING SO THAT THE EXCAVATIONS ARE DRY ENOUGH FOR INSPECTION, TESTING AND CONSTRUCTION.
8. CAST-IN-PLACE CONCRETE LEVELING PAD:
 - 6 INCHES MINIMUM x 12 INCHES
 - CONCRETE STRENGTH: 2500 psi (MINIMUM) @ 28 DAYS
 - NO REBAR
 - GRADE TOLERANCE - 1/4 INCH IN 10 FEET
9. T-WALL@ UNIT REBAR:
 - ASTM A615
 - Fy = 60 ksi (GRADE 60)
 - EPOXY COATED
 - WELDING IS NOT PERMITTED
10. T-WALL@ UNIT CONCRETE STRENGTH:
 - 5000 psi (MINIMUM) @ 28 DAYS
11. SHEAR KEYS:
 - NO REBAR
 - CONCRETE STRENGTH: 5000 psi (MINIMUM) @ 28 DAYS
 - WALL IS DESIGNED FOR SPECIFIC NUMBER OF SHEAR KEYS AS SHOWN IN TYPICAL SECTION FOR SPECIFIC WALLS
 - LOCATION OF SHEAR KEYS CAN BE ADJUSTED IF NECESSARY AT A SPECIFIC LEVEL.
 - SHEAR KEY WRAP:
 - 1/4 INCH POLYETHYLENE FOAM WRAP TWO TIMES AROUND THE SHEAR KEY.
 - SHEAR KEY WRAP: AF250 POLYETHYLENE FOAM
12. CONSTRUCTION:
 - TO BE IN ACCORDANCE WITH T-WALL@ CONSTRUCTION MANUAL (v07.04) AND TYPICAL T-WALL@ NOMENCLATURE ON SHEET TW-2.
 - T-WALL@ CONSTRUCTION MANUAL (v07.04) CAN BE DOWNLOADED FROM OUR WEB SITE AT www.neelco.com, UNDER "Downloads".
 - CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATED SLOPES. DESIGN AND CONSTRUCTION OF ANY REQUIRED TEMPORARY SUPPORT OF EXCAVATION SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL SURFACE RUNOFF IS TO BE DIVERTED AWAY FROM EXCAVATIONS TO AVOID THE DETERIORATION OF THE SUBGRADE SOILS DUE TO EXPOSURE TO MOISTURE.

SHOP DRAWING REVIEW

REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.

REJECTED REVISE AND RESUBMIT FURNISH AS CORRECTED

CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR: CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

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HUBBARDTON

Job Number: ER STP 01 61 (27)

Reviewed By: S. G. FARNSWORTHY

Date: 9-28-2012



The design contained on these drawings is based upon information provided by the owner. On the basis of this information, The Neel Company has designed, and is responsible for, the internal stability of the structure only. External stability, including foundation and slope stability, is the responsibility of the owner.

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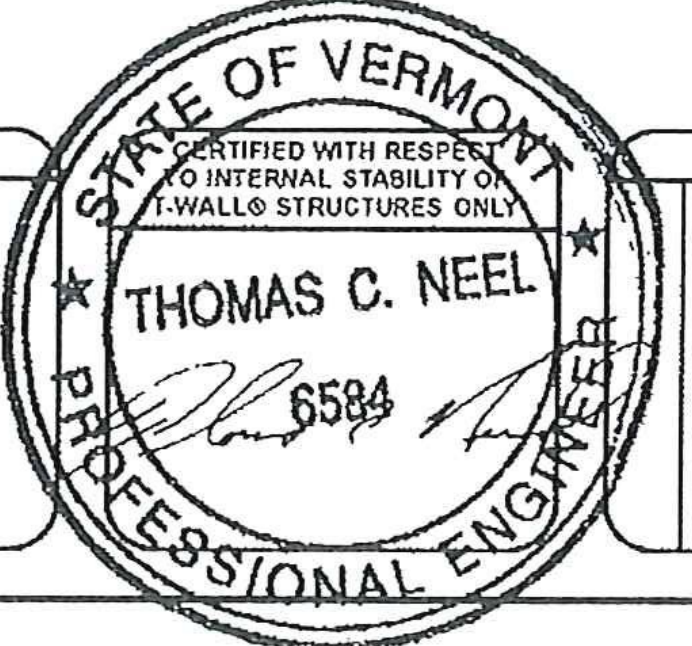
PRECASTER: CONCRETE SYSTEMS INC.
HUDSON, NH
PROJECT #: T21377

CONTRACTOR: J. A. McDONALD INC.
LYNDON CENTER, VERMONT
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DESIGNER

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REVISIONS		

RTE. 30 BRIDGE IMPROVEMENTS
BRIDGE NO. 98
TOWN OF HUBBARDTON, VT
ER STP 0161 (27)
SHOP DRAWINGS
GENERAL T-WALL@ NOTES

T-WALL@ RETAINING WALL SYSTEM

SCALE:	NO SCALE
DATE:	9-25-2012
DESIGNED BY:	NN
DRAWN BY:	HS
CHECKED BY:	NN
SHEET:	3