



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

ROADWAY DESIGN DIVISION
SUITE 1200 JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-3848
(615) 741-2221

CLAY BRIGHT
COMMISSIONER

BILL LEE
GOVERNOR

INSTRUCTIONAL BULLETIN NO. 21-09

REGARDING CHAPTER 2 – RETAINING WALL ITEM UPDATE

Effective immediately, the Roadway Design Guidelines Chapter 2 has been updated to provide clarification of when Structures and Geotech personnel will provide calculations for the foundation quantities associated with retaining walls.

2-900.07 RETAINING WALL QUANTITIES

Accurate retaining wall quantities are necessary when preparing an estimate for the project during the lifetime of the project. Retaining wall quantities must be estimated as early as possible and included in the request for R.O.W. funding. The quantities must also be included in any R.O.W. revisions that include retaining wall quantities.

Project Development shall calculate the following **roadway items** as applicable associated with each retaining wall:

ITEM NUMBER	DESCRIPTION	QUANTITY
620-05	CONCRETE PARAPET WITH STRUCTURAL TUBING	L.F.
620-10	CONCRETE PARAPET WITH PEDESTRIAN RAILING	L.F.
711-05.70	32" SINGLE SLOPE CONCRETE BARRIER WALL	L.F.
711-05.71	51" SINGLE SLOPE CONCRETE BARRIER WALL	L.F.

Structures and Geotech personnel shall calculate the quantity for each retaining wall. Each retaining wall shall be paid for separately utilizing Item Numbers 604-07.01 through 604-07.XX, as needed, with quantities calculated in square feet (S.F.).

ITEM NUMBER	DESCRIPTION	QUANTITY
*604-07.01 through 604-07.XX	RETAINING WALL (DESCRIPTION)	S.F.

NOTE: The description shall be filled in with the wall number, beginning and end station, and the location of the wall in reference to the centerline of the associated road, ramp, or side road left (LT) or right (RT).

Example: 604-07.01 RETAINING WALL (R1, STA. 500+00.00 to STA. 502+05.00, LT)

Example: 604-07.02 RETAINING WALL (R2, STA. 603+15.00 to STA. 604+55.00, RT)

The following quantities are **INCLUDED** in the square footage of the wall and shall not be listed as separate pay items:

ITEM NUMBER	DESCRIPTION	QUANTITY
203-40.10	TIE-BACK ANCHORS (SOIL)	L.F.
203-40.11	TIE-BACK ANCHORS (ROCK)	L.F.
203-40.12	TIE-BACK ANCHORS (3-STRAND UNCLASSIFIED)	L.F.
203-40.13	TIE-BACK ANCHORS (4-STRAND UNCLASSIFIED)	L.F.
203-40.14	TIE-BACK ANCHORS (5-STRAND UNCLASSIFIED)	L.F.
203-40.18	TIE-BACK ANCHORS (ABANDONED)	L.F.
604-01.52	CUSTOM ELASTOMERIC FORM LINER	LS
604-04.01	APPLIED TEXTURE FINISH (NEW STRUCTURES)	S.Y.
710-09.01	6" PERFORATED PIPE WITH VERTICAL DRAIN SYSTEM	L.F.

Structures and Geotech personnel shall calculate the foundation quantities associated with each Category 1 retaining wall **only**. For gravity type retaining walls, the Roadway Designer will use standard drawings and associated item numbers. **Foundation Items** for each retaining wall shall be paid for separately and are not included in the square footage of the wall. Foundation items include but are not limited to the following:

ITEM NUMBER	DESCRIPTION	QUANTITY
203-02.01	BORROW EXCAVATION (GRADED SOLID ROCK) (off site)	TON
203-02.02	BORROW EXCAVATION (GRADED SOLID ROCK) (on site)	C.Y.
203-03.01	BORROW EXCAVATION (SELECT MATERIAL)	C.Y.
203-03.05	BORROW EXCAVATION (SELECT MATERIAL)	TON
606-03.03	STEEL PILES (12 INCH)	L.F.
606-03.05	STEEL PILES (12 INCH) COLUMN	L.F.
606-04.03	STEEL PILES (14 INCH)	L.F.
606-04.05	STEEL PILES (14 INCH) COLUMN	L.F.
625-02.01 through 625-02.06	DRILLED SHAFT-SOIL (DIA.)	V.F.
625-02.13 through 625-02.18	DRILLED SHAFT-ROCK (DIA.)	V.F.
625-02.25 through 625-02.30	DRILLED SHAFT CASING-PERMANENT (DIA.)	V.F.

625-02.40	DRILLED SHAFT (SH-SCC) CONCRETE	C.Y.
625-02.44	DRILLED SHAFT REINFORCING STEEL	LB.
626-01.01	AGGREGATE FOUNDATION SYSTEMS	L.S.
740-10.04	GEOTEXTILE (TYPE IV)(STABILIZATION)	S.Y.
930-08.26	LOADING TEST (SOIL NAILS)	EACH
Numerous Items	DRILLING	

Link for RDG Chapter 2:

https://www.tn.gov/content/dam/tn/tdot/roadway-design/documents/design_guidelines/DG-C2.pdf

If you have any questions or concerns, please contact me at Jennifer.Lloyd@tn.gov or James James.D.Kelley@tn.gov or Laura at Laura.Chandler@tn.gov.


 Jennifer Lloyd, PE
 Civil Engineering Director
 Roadway Design Division

KJL: JDK: LHC
 March 22, 2021