

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 337	(19R-1)	LAKE	800	604
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET NO. 22
37 SHEETS

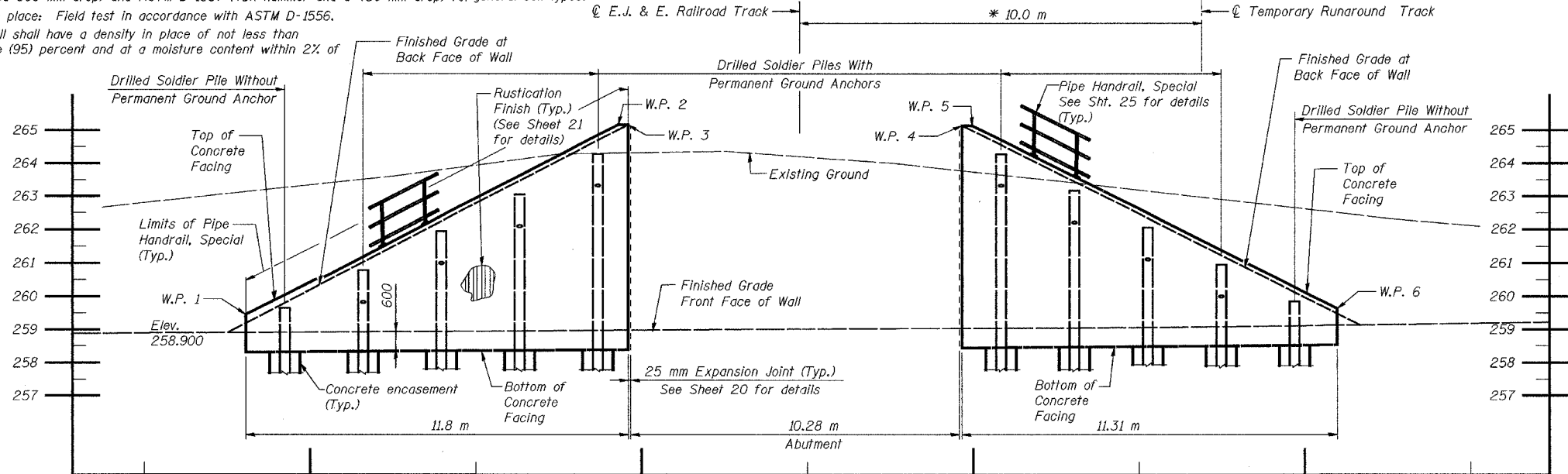
Compaction:

The backfill behind the wall shall be mechanically stabilized by increasing its density at a controlled moisture condition.

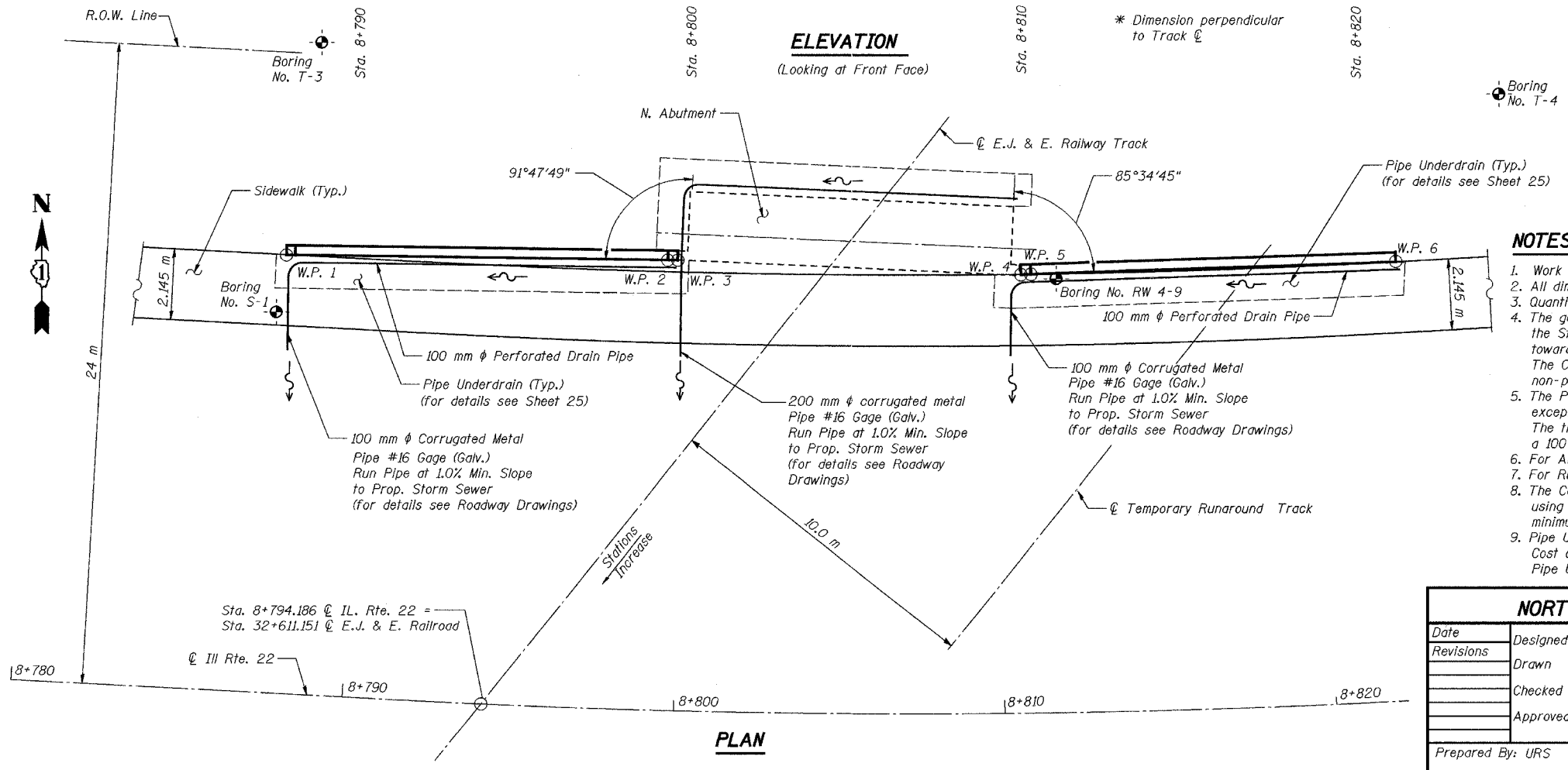
"Degree of Compaction" is expressed as a percent of maximum density obtained by the test procedure described in ASTM D-698 (25N hammer and 300 mm drop) and ASTM D 1557 (45N hammer and a 450 mm drop) for general soil types.

Density, in place: Field test in accordance with ASTM D-1556.

The backfill shall have a density in place of not less than ninety-five (95) percent and at a moisture content within 2% of optimum.



ELEVATION
(Looking at Front Face)



PLAN

WORK POINTS AND WALL ELEVATIONS

WP No.	IL Rte. 22 Station	Offset Lt. (m)	Top Concrete Facing Elev.	Bott. Concrete Facing Elev.
1	8+787.052	13.270	259.407	258.305
2	8+798.885	13.577	265.157	258.383
3	8+799.202	13.641	265.157	258.385
4	8+809.997	13.270	265.163	258.435
5	8+810.311	13.270	265.163	258.437
6	8+821.849	13.270	259.658	258.530

SEQUENCE OF CONSTRUCTION

(The following Sequence of Construction should be coordinated with the suggested Sequence of Construction on sheet 3.)

1. Excavate working platform and drill shaft excavation for soldier pile to tip elevation shown on Sht. 23. The side walls of the shaft excavation shall be supported as required to prevent collapse.
2. Remove any loose material and excess water from shaft. If the water flow is excessive or pumping causes side wall caving, allow water level to stabilize so that the concrete can be placed by pump or tremie.
3. Set soldier pile in the shaft excavation and brace to maintain proper pile position.
4. Place soldier pile encasement concrete around soldier pile to the bottom of the concrete facing elevation and Controlled Low Strength Material to the excavated ground surface.
5. Excavate in front of wall in stages removing only the soil necessary to place timber lagging snug against excavated surface.
6. Install permanent ground anchors and tension to specified load.
7. After the lagging has been placed to the depths shown on Sht. 24, the geocomposite wall drain shall be attached to and cover the untreated timber lagging.
8. The pipe underdrain shall be constructed by excavating a trench, lining it with fabric, placing a pipe and aggregate such that the geocomposite wall drain is connected as shown on Sht. 25.
9. Attach shear studs and set reinforcement.
10. Place an adequate amount of compacted embankment behind the wall according to Section 205 of the Standard Specifications.
11. Form, set reinforcement and pour concrete facing.

NOTES:

1. Work this Sheet with Sheets 19 through 21 and 23 through 26.
2. All dimensions are in millimeters (mm) except as noted.
3. Quantity of embankment placed behind the wall is included in the roadway plans.
4. The geocomposite wall drain shall be constructed according to Section 591 of the Standard Specifications. The drain shall be placed with the pervious side toward the soil and completely cover the exposed face of the lagging. The Contractor shall insure that the top, sides, and back are covered with non-pervious materials as required to protect the drain from wet concrete intrusion.
5. The Pipe Underdrain installation shall follow Section 601 of the Standard Specifications, except that the excavation should be filled with CA-5 or CA-7 Coarse Aggregate. The trench will be lined with Geotechnical Fabric for Pipe Underdrain and have a 100 mm diameter pipe located near the base of the excavation.
6. For Abutment Drainage details see Sheet 18.
7. For Rustication Finish Details see Sheet 21. For Rustication Limits see Sheet 23.
8. The Contractor is responsible for the design and performance of the lagging using no less than a 75 mm nominal rough-sawn thickness and timber with a minimum allowable bending stress fb of 6,895 kPa.
9. Pipe Underdrain shall connect with the proposed Storm Drainage System. Cost of non-perforated pipe and connections to the drainage structure is included in Pipe Underdrains for Structures, 100mm.

NORTH ABUTMENT WING WALLS PLAN AND ELEVATION

Date	Designed EV	ELGIN, JOLIET & EASTERN R.W. CO. BRIDGE OVER ILLINOIS ROUTE 22 F.A.P. ROUTE 337 SECTION (19R-1) LAKE COUNTY STATION 32+611.151 STRUCTURE NO. 049-0188	Sheet No. 22 of 37
Revisions	Drawn EV		
	Checked NPP		
	Approved NPP		
Prepared By: URS			