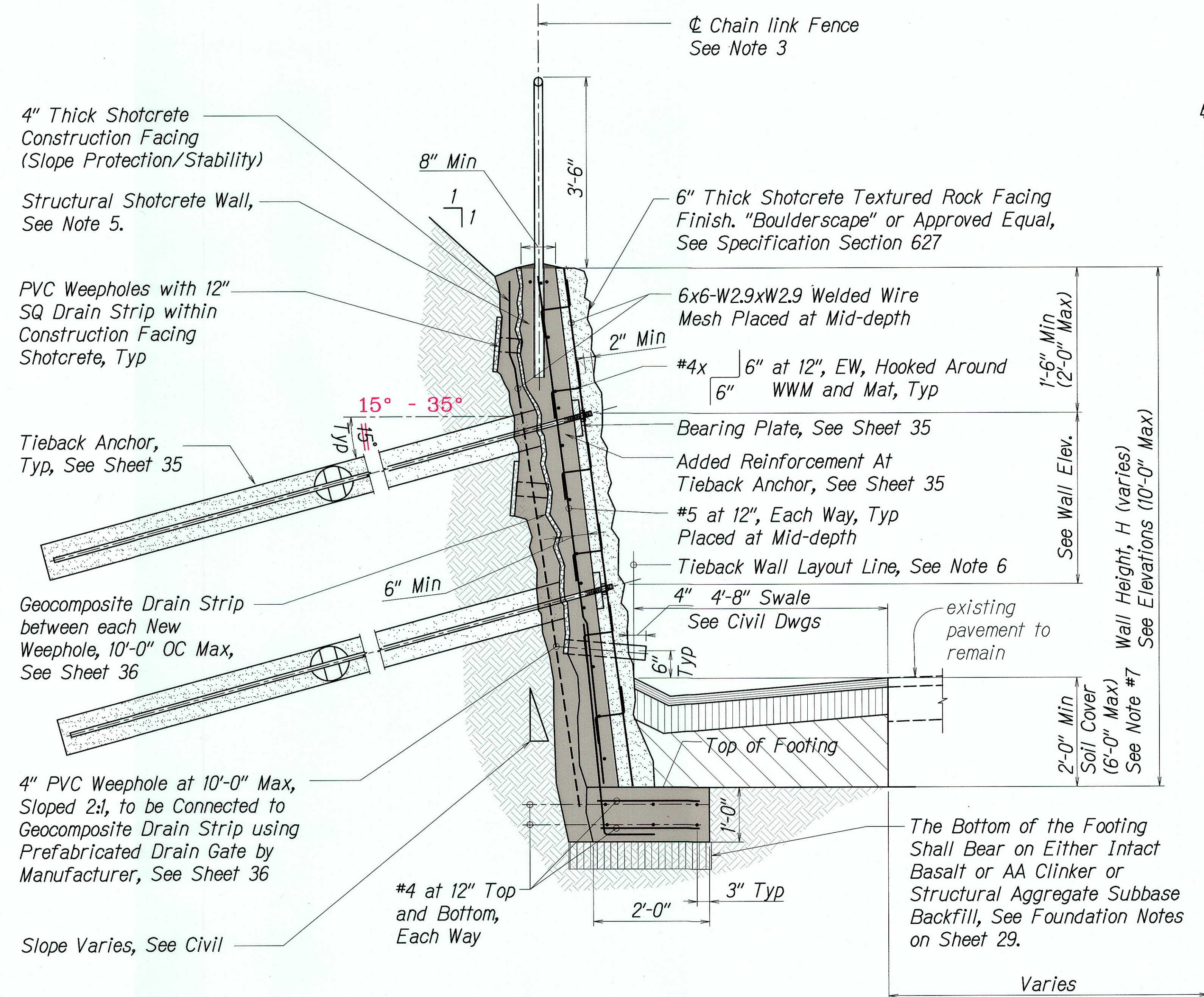


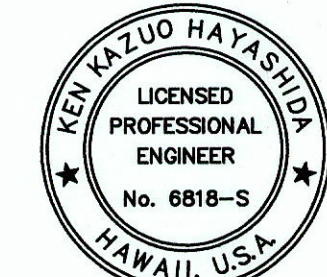
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | STP-0190(016) | 2016 | 34 | 36 |



- Notes:**
1. Refer to the suggested tieback anchor construction sequence below.
 2. The shotcrete facing textured (i.e. sculpted) finish shall be limited to a maximum 1" relief for heights of 6 feet above existing roadway. Facing textures greater than 6 feet above the existing roadway shall be finished as per the project specifications.
 3. See Sheet 36 for additional chain link fence post foundation details. The chain link fence shall conform to the State of Hawaii Standard Specifications and State of Hawaii Department of Transportation Standard Plans.
 4. Shotcrete wall slope varies approximately 5 to 12 degrees, typical. See Civil Cross Sections. Typical slope is approximately 5 degrees. Slope adjustment may be required to meet field conditions.
 5. The structural shotcrete wall thickness shall be a minimum of 8" at the top 3 feet of the wall. Below that, the wall thickness shall be a minimum of 6".
 6. Tieback wall layout line is the reference point where the top of the swale meets the front face of the retaining wall and is the reference point for the retaining wall offset from Mamalahoa Hwy. The Contractor is responsible for maintaining consistent and proper alignment of the face of the wall with the existing roadway baseline to reduce excess wall thickness and changes.
 7. Refer to the foundation structural notes on sheet 29 for backfill requirements.
 8. Refer to Civil Section at Retaining Wall, Sheet 7, for further retaining wall offset information.

- Suggested Tieback Anchor Construction Sequence:**
1. The following is a suggested sequence of operations to construct the tieback retaining wall. The sequence is suggestive only for the contractor's information. The contractor may alter or change to accommodate the specific means and methods used in his operations.
 2. Install the tieback anchors as per the structural drawings prior to excavating the existing slope to reduce excessive disturbance.
 3. Excavate the existing slope and footing to the planned finish grades.
 4. Install weep holes, drain strip, welded wire mesh and cover exposed slope with a 4" thick shotcrete construction facing. Place WWM center of facing.
 5. Construct footing; install reinforcement and place concrete.
 6. Construct structural shotcrete wall reinforcement and chainlink fence post sleeves.
 7. Place shotcrete structural wall as per structural drawings.
 8. Continue with wall construction.

| LEGEND FOR AS-BUILT POSTINGS | |
|------------------------------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| Roadway | Text for as-built posting |



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL TIE-BACK WALL SECTION

MAMALAHOA HIGHWAY
DRAINAGE IMPROVEMENTS
Vicinity of Puuwaawaa Ranch Road
Federal-Aid Project No. STP-0190(016)
Scale: As Noted Date: April 2016

SHEET No. 6 OF 8 SHEETS