1. All material and workmanship shall be in accordance with the requirements of the Washington State Department of Transportation Standard Specifications for Road, Bridge and Municipal Construction 2016 edition.

2. This structure has been designed in accordance with the requirements of the AASHTO LRFD Bridge Design Specifications, 7th edition, unless noted otherwise.

3. Geosynthetic and structural earth walls shall be designed and constructed in accordance with the Special Provisions and Geotechnical Recommendations to the limits shown on the plans and supplemented by the special provisions unless noted otherwise. Dimensioning and details for minimum embedment depth.

4. Dimensions and locations of existing structures shown on the plans are approximate. Dimensions and locations of new structures shall be reported to the engineer for review and resolution prior to commencing any work.

5. Unless otherwise shown on the plans, the concrete cover measured from the face of the concrete to the face of any reinforcing steel shall be 2".

6. See drainage plans for drainage details.

7. See landscape plans for soil, ground cover, planting, and seeding details.

8. All exposed cast-in-place wall fascias shall receive pigmented sealer to 1'-0" below finished grade.

**GENERAL WALL NOTES**

**Structural Steel**

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**Reinforcing Steel**

Steel reinforcement shall be ASTM A706, Grade 60.

**WALL SCHEDULE**

- EXISTING WALL 2: Geosynthetic Wall
- WALL K: Geosynthetic Wall
- WALL M: Geosynthetic Wall

- Wall receives Class 1 finish in accordance with Standard Specification 6-02.3(14)
- **Fascia shall receive architectural finish per plan numbers WAD10 & WAD11**

**Legend**

- BW: Back of Wall
- EX: Existing Grade
- FDW: Front of Wall
- FG: Finish Grade
- SEW: Structural Earth Wall
- TOW: Top of Wall

**WALL NOTES**

- **Cast-in-place wall concrete shall have a nominal 28-day compressive strength of 4,000 psi (class 4000).**

**Plan**

S. 11. T. 20N. R. 3E. W.M.

**S. 2. T. 20N. R. 3E. W.M.**
NOTES:

1. See Wall General Notes on Sheet WL01

2. Wall Alignment is at WP (Work Point) or Wall Workline as shown on Wall Sections

3. Expansion Joints shown conceptually. Contractor to determine actual locations. Expansion joints in wall fascia shall be spaced at 24'-0" on-center, and be in accordance with WSDOT STD. PLAN D-3.10-01.

4. Bottom of footing is shown conceptually. Contractor to determine actual location of footing. Bottom of footing shall be a minimum of 2'-0" below finished grade and be in accordance with WSDOT STD. PLAN 0.1.15.01.

5. Underdrain behind straps is conceptually shown. Underdrain shall be daylighted to drain.
NOTES

1. SEE WALL GENERAL NOTES ON SHEET WL01

2. WALL ALIGNMENT IS AT WP (WORK POINT) OR WALL WORKLINE AS SHOWN ON WALL SECTIONS

3. EXPANSION JOINTS SHOWN CONCEPTUALLY. CONTRACTOR TO DETERMINE ACTUAL LOCATIONS. EXPANSION JOINTS IN WALL FASCA SHALL BE SPACED AT 24'-0" MAX. ON CENTER AND BE IN ACCORDANCE WITH WSDOT STD PLAN D-3.10-01

4. BOTTOM OF FOOTING IS SHOWN CONCEPTUALLY. CONTRACTOR TO DETERMINE ACTUAL LOCATION OF BOTTOM OF FOOTING. BOTTOM OF FOOTING SHALL BE MINIMUM OF 2'-0" BELOW FINISHED GRADE AND BE IN ACCORDANCE WITH WSDOT STD PLAN D-3.10-01

5. UNDERDRAIN SHOWN STRAPS IS CONCEPTUALLY SHOWN UNDERDRAIN SHALL BE SUNLIT TO DRAIN.

SHEETS

DATE

REV

BY

DESIGNED BY:

PLAN NUMBER

CHECKED BY:

PROJ. MANGER:

CODE

PLOT INFO

DRAFTED BY:

INTERSTATE 5

PORT OF TACOMA ROAD INTERCHANGE

WALL L ALIGNMENT AND PROFILE - SHEET 1

SECTION 515

WAG2

LONGPT Inc.

520 4th Ave North

Suite 400

Seattle, WA 98109

Phone: (206) 351-0000

Fax: (206) 351-0001

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1. SEE WALL GENERAL NOTES ON SHEET WL01

2. WALL ALIGNMENT IS AT WP (WORK POINT) OR WALL WORKLINE AS SHOWN ON WALL SECTIONS

3. EXPANSION JOINTS SHOWN CONCEPTUALLY. CONTRACTOR TO DETERMINE ACTUAL LOCATIONS. EXPANSION JOINTS IN WALL FASCA SHALL BE SPACED AT 20'-0" MAX. CENTER AND BE IN ACCORDANCE WITH WSDOT STD PLAN D-3.10-01

4. BOTTOM OF FOOTING IS SHOWN CONCEPTUALLY. CONTRACTOR TO DETERMINE ACTUAL LOCATION OF BOTTOM OF FOOTING. BOTTOM OF FOOTING SHALL BE MINIMUM OF 2'-0" BELOW FINISHED GRADE AND BE IN ACCORDANCE WITH WSDOT STD PLAN D-3.10-01

5. UNDERDRAIN BESIDE STRAPS IS CONCEPTUALLY SHOWN. UNDERDRAIN SHALL BE DAYLIGHTED TO DRAIN.

UNDERDRAIN, SEE NOTE 5

LIMITS OF GROUND IMPROVEMENTS

EXISTING GRADE

BOTTOM OF WALL, SEE NOTE 4

TOP OF WALL

BOTTOM OF WALL, SEE NOTE 4

EXISTING GRADE

EXP. JT (TYP.)

ACCESS ROAD

MACHTLINE WALL A LINE

TOP OF WALL

ACCESS ROAD

MACHTLINE WALL A LINE

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TOP OF WALL
PLAN - WALL M

SEE WALL SECTIONS ON SHEETS B AND PUBE

ELEVATION - WALL M

NOTE:
1. SEE WALL GENERAL NOTES ON SHEET WGB1
2. WALL ALIGNMENT IS AT WP (WORKPOINT) WALL WORKLINE AS SHOWN ON WALL SECTIONS.
PLAN - WALL J

SEE WALL SECTIONS ON WAD02 & WAD03

ELEVATION - WALL J

NOTES:
1. SEE WALL GENERAL NOTES ON SHEET WL01.
2. WALL ALIGNMENT IS AT WP (WORK POINT) OR WALL WORKLINE AS SHOWN ON WALL SECTIONS.
1. Geosynthetic strap lengths, L, are determined from WSDOT Standard Plan D03.09-00 (TYP. 2).
2. Design heights, H, for the purpose of determining geosynthetic strap lengths, shall be determined from the wall alignment and profile drawings and is defined as follows:
   \[ H = \frac{A + B}{C} \]
   where, \( A = F \) @ BOW - FG @ FOW

**Notes:**

**Detail - 6" Underdrain**

**Backfill and Excavation Pay Limits**

Geosynthetic strap lengths, L, are determined from WSDOT Standard Plan D03.09-00 (TYP. 2). Design heights, H, for the purpose of determining geosynthetic strap lengths, shall be determined from the wall alignment and profile drawings and is defined as follows:

\[ H = \frac{A + B}{C} \]

where, \( A = F \) @ BOW - FG @ FOW

- Backfill and excavation pay limits as specified in Standard Plan D 3.09-00.

**Notes:**

**Detail - 6" Underdrain**

Geosynthetic strap lengths, L, are determined from WSDOT Standard Plan D03.09-00 (TYP. 2). Design heights, H, for the purpose of determining geosynthetic strap lengths, shall be determined from the wall alignment and profile drawings and is defined as follows:

\[ H = \frac{A + B}{C} \]

where, \( A = F \) @ BOW - FG @ FOW

- Backfill and excavation pay limits as specified in Standard Plan D 3.09-00.

**Notes:**

**Detail - 6" Underdrain**

Geosynthetic strap lengths, L, are determined from WSDOT Standard Plan D03.09-00 (TYP. 2). Design heights, H, for the purpose of determining geosynthetic strap lengths, shall be determined from the wall alignment and profile drawings and is defined as follows:

\[ H = \frac{A + B}{C} \]

where, \( A = F \) @ BOW - FG @ FOW

- Backfill and excavation pay limits as specified in Standard Plan D 3.09-00.

**Notes:**

**Detail - 6" Underdrain**

Geosynthetic strap lengths, L, are determined from WSDOT Standard Plan D03.09-00 (TYP. 2). Design heights, H, for the purpose of determining geosynthetic strap lengths, shall be determined from the wall alignment and profile drawings and is defined as follows:

\[ H = \frac{A + B}{C} \]

where, \( A = F \) @ BOW - FG @ FOW

- Backfill and excavation pay limits as specified in Standard Plan D 3.09-00.

**Notes:**
TYPICAL SECTION - WALL K

NOTES:
1. GROUND IMPROVEMENTS (REGO INCLUSIONS) SHALL CONSIST OF TREATED TIMBER PILING PER WSDOT STANDARD SPECIFICATIONS SECTION 6-14 AND SECTION 4-10.1 (DOUGLAS FIR). TREATMENT FOR TIMBER PLACING SHALL BE PRESEVATIVE TREATMENT AMMONIAL COPPER ZINC ARSENATE (ACZA).
2. GEOSYNTHETIC STRAP LENGTHS, L, ARE DETERMINED FROM WSDOT STANDARD PLAN D3.09-00 (TYPE 2 AND TYPE 4).
3. DESIGN HEIGHTS, L FOR THE PURPOSE OF DETERMINING GEOSYNTHETIC STEP LENGTH SHALL BE DETERMINED FROM WALL ALIGNMENT AND PROFILE DRAWINGS AND IS DEFINED AS FOLLOWS:
   \[ h = n + \max(2', 0.10 \times h) \]
   WHERE \( h = \text{FG @ BOW} - \text{FG @ FOW} \)
4. BACKFILL FOR GEOSYNTHETIC WALLS SHALL BE "GRAVEL BORROW FOR STRUCTURAL Earth WALLS IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 6-14.
5. BACKFILL AND EXCAVATION PAY LIMITS AS SPECIFIED IN STANDARD PLAN D3.09-00.

DETAIL

SECTION
**DETAIL - CATCH BASIN AND GUARDRAIL POST WITHIN GEOSYNTHETIC**

**NOTE:** Guardrail post installation shall be in accordance with WSDOT Standard Specification Section 6-14.3(5). For purpose of bid, contractor shall assume oversized corrugated can is standard specification section 6-14.3(5). For purpose of bid, guardrail post installation shall be in accordance with WSDOT.

Contractor shall assume oversized corrugated can is installed prior to post placement and annulus space is then backfilled and compacted after post placement (Ref. DM 730-12).

---

**SECTION A**

- Drain pipe
- Outside face of geosynthetic
- Drain pipe between catch basins
- Cut geosynthetic around oversized corrugated can
- Baskfall annulus space with same backfill within geosynthetic wall
- Butyl rubber wrap
- Barrier
- Bow

**SECTION B**

- Partial plan
- End of geosynthetic straps
- Wall fascia
- Cut geosynthetic straps, trim at catch basin

**SECTION C**

- Approach slab
- Finished grade
- E12" EFS block
- 8"x12" EPS block
WALL SECTION

LAGGING SYSTEM SHALL BE DESIGNED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 6-16.3(6). CONTRACTOR SHALL ASSUME SOIL TYPE 2 FOR DETERMINING MINIMUM TIMBER LAGGING THICKNESS.

SECTION

SOLDIER PILE LIFTING HOLE

LIFTING HOLE TO BE DRILLED IN THE SHOP PRIOR TO PAINTING THE PILE.
NOTE:
HALF OF THE PREFABRICATED DRAINAGE MAT.

NOTE:
EXPANSION JOINTS SHALL BE LOCATED AS SHOWN ON DRAWING WAS.

NOTE:
EXPANSION JOINT:
WEEP HOLES LOCATED AT AN EXPANSION JOINT MAY BE ADJUSTED 6" TO 1'-0" AWAY FROM THE DRILL SHAFT BACK TO PLACE LAGGING.

NOTE:
WEED HOLES LOCATED AT AN EXPANSION JOINT MAY BE ADJUSTED 6" TO 1'-0" AWAY FROM THE DRILL SHAFT BACK TO PLACE LAGGING.

NOTE:
DRAIN GRATE INSTALLATION SHALL NOT DISRUPT PREFABRICATED DRAINAGE MAT.

NOTE:
WEED HOLES LOCATED AT AN EXPANSION JOINT MAY BE ADJUSTED 6" TO 1'-0" AWAY FROM THE DRILL SHAFT BACK TO PLACE LAGGING.
**ELEVATION - CABLE FENCE**

- Angles vary with the slope of the top of wall. Approx. 45° when installed on a level surface.
- Measured perpendicular to the posts.

**CHAIN CONNECTION AT BARRIER**

**NOTES:**

1. All steel pipe shall be ASTM A53 grade B, type E or S, or ASTM A450 grade B.
2. All steel plate shall be ASTM A36 or ASTM A572.
3. Rope shall consist of Zn-coated wires conforming to ASTM A 490, or ASTM A 417 with a prestretched modulus of elasticity of 15,000 ksi, or "Phillystran" rope.
4. All parts except rope shall be hot dip galvanized in accordance with administrative code 296-155-24615.
5. The spelter sockets and socketing procedure shall be in accordance with the spelter socket and rope manufacturers recommendations.
6. All posts to be installed vertical and rope to be installed parallel to top of wall.
7. Rope shall be installed to 400 lbs tension leaving a take up of 5' still available in the turnbuckles.
8. Each continuous length of cable shall have a turnbuckle at one end only and be anchored to end post with brace at both ends.
9. Intermediate posts and braces shall not be installed across expansion joint.
10. Cable fence was designed for a 200 lb. load on the top rail applied in any direction, as required by administrative code 196-155-24615.
11. Rope, spelter sockets, turnbuckles and their connections shall have a minimum breaking strength of 26 kips.