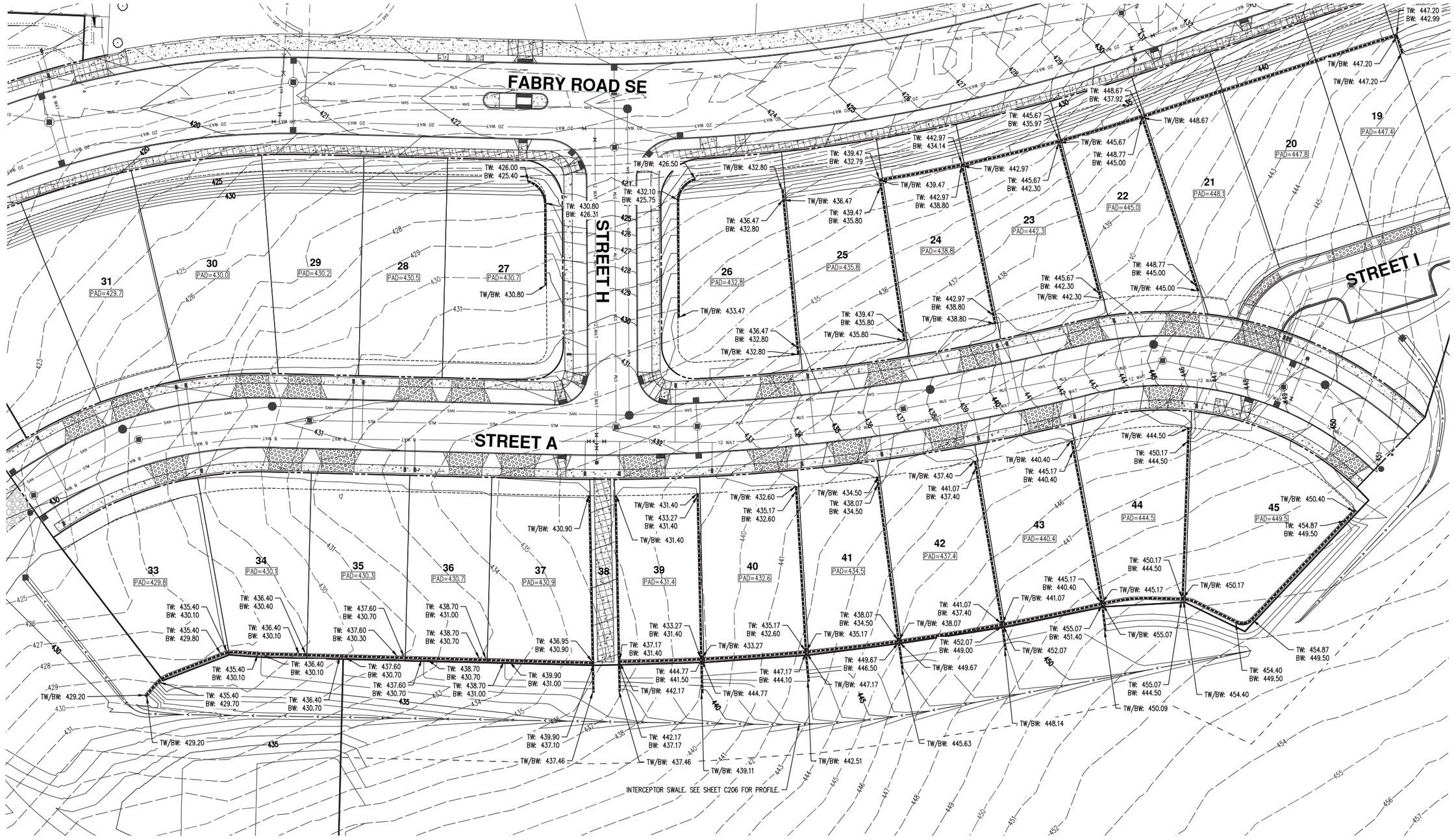
Attachment 2: Final Engineering Plans - Retaining Walls



RETAINING WALL NOTES:

1. RETAINING WALL INFORMATION SHOWN IS ONLY FOR ALIGNMENT (LOCATION) AND ELEVATIONS (HEIGHTS). RETAINING WALL DESIGN AND CONSTRUCTION SHALL BE PER THE GEOTECHNICAL ENGINEER'S DETAILS. SEE SHEET C083 FOR DETAILS.
2. RETAINING WALL EMBEDMENT SHALL BE PER THE PROJECT GEOTECHNICAL ENGINEER. SEE SHEET C083 FOR DETAILS.
3. GEOTECHNICAL ENGINEER SHALL MONITOR RETAINING WALL CONSTRUCTION, INCLUDING VERIFICATION OF SUITABILITY OF BEARING SOILS, BLOCK PLACEMENT, REINFORCEMENT TYPE, LENGTH AND SPACING, DRAIN INSTALLATION, AND BACKFILL PLACEMENT AND COMPACTION.
4. RETAINING WALLS SHALL BE CONSTRUCTED OF "AB STONES" FROM ALLAN BLOCK.
5. TW = TOP OF WALL AND BW = BASE EXPOSED WALL.
6. ELEVATIONS IDENTIFIED ARE FOR THE EXPOSED PORTION OF THE WALL. WALL FOOTING/FOUNDATION ELEVATIONS ARE NOT IDENTIFIED AND ARE TO BE DETERMINED BY GEOTECHNICAL ENGINEER.
7. FINISH FLOOR ELEVATION IS EQUAL TO PAD GRADE PLUS 24".
8. SIDE YARD TOP OF WALL ELEVATION IS EQUAL TO 16" BELOW FINISH FLOOR ELEVATION.
9. ADDITIONAL BLOCK BURY MAY BE REQUIRED TO CONSTRUCT WALL HEIGHTS SHOWN.

LEGEND

- EXISTING GROUND CONTOUR (1 FT) — 344 —
- EXISTING GROUND CONTOUR (5 FT) — 345 —
- FINISHED GRADE CONTOUR (1 FT) 344
- FINISHED GRADE CONTOUR (5 FT) 345
- RETAINING WALLS

ABBREVIATION LEGEND

TW = TOP FACE OF RETAINING WALL
BW = BOTTOM FACE OF EXPOSED RETAINING WALL

N

SCALE: 1"= 30 FEET
30 0 6 15 30

AKS ENGINEERING & FORESTRY, LLC
3700 RIVER RD N, STE 1
KEIZER, OR 97303
503.400.6028
WWW.AKS-ENG.COM

ENGINEERING - SURVEYING - NATURAL RESOURCES
FORESTRY - PLANNING - LANDSCAPE ARCHITECTURE

HEADWATERS NO.1

SALEM
TAX LOT 204

OREGON
MARION COUNTY TAX MAP 08 3W 14

RETAINING WALL SPOT ELEVATION PLAN

DESIGNED BY:	BTW
DRAWN BY:	MT
MANAGED BY:	MTA
CHECKED BY:	JMP
DATE: 03/30/2022	

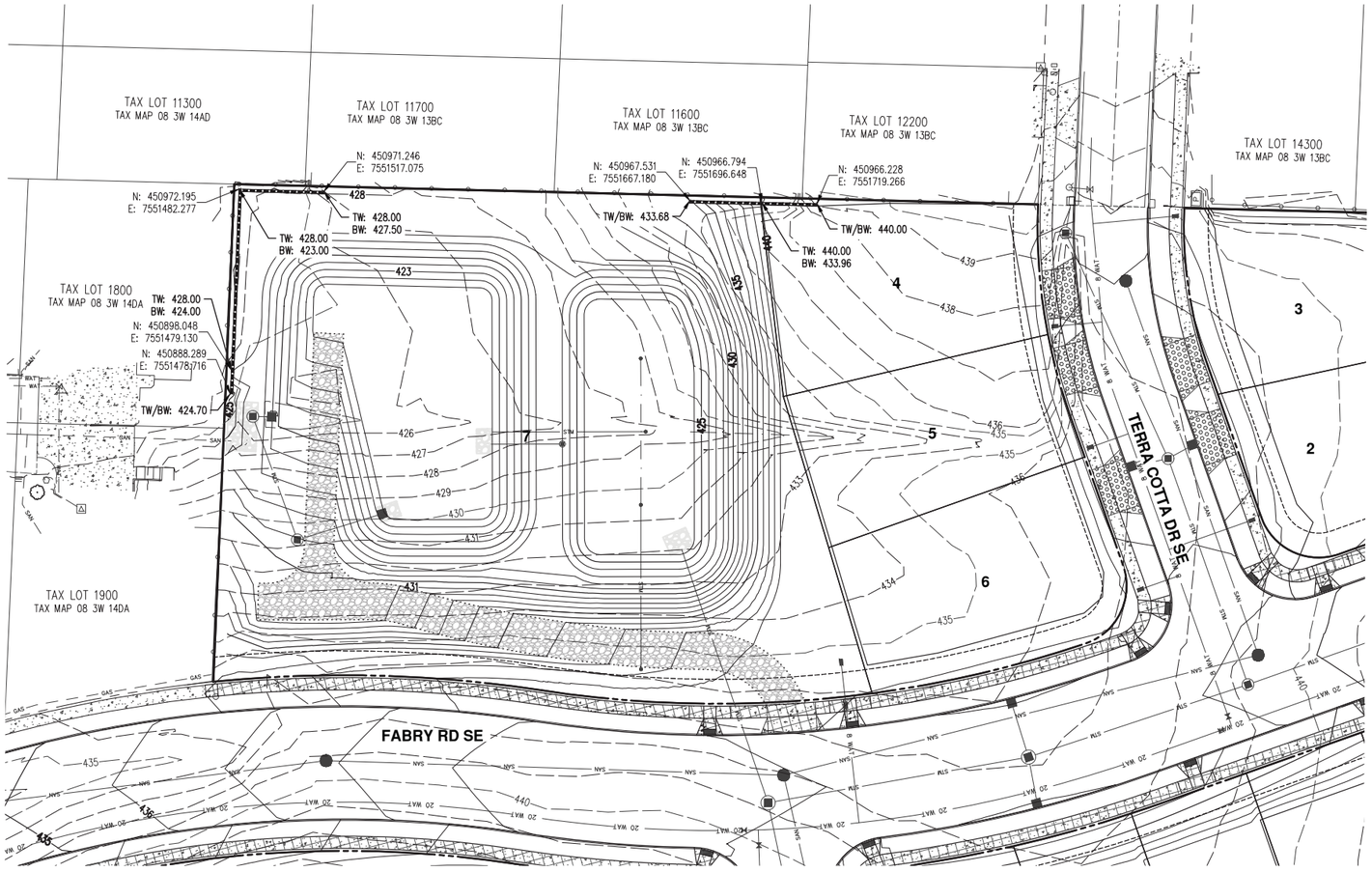
REGISTERED PROFESSIONAL ENGINEER
55486PE
DIGITALLY SIGNED
OREGON
SEPT. 25, 2009
JACK M. POISSANT
EXPIRES: DEC. 31, 2022

REVISIONS

JOB NUMBER 7858

SHEET C081

AKS DRAWING FILE: 7858PH1 RETAINING WALL PLAN AND PROFILE.DWG | LAYOUT: C081



LEGEND

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EXISTING GROUND CONTOUR (5 FT)	345
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N

SCALE: 1"= 30 FEET

30 0 6 15 30

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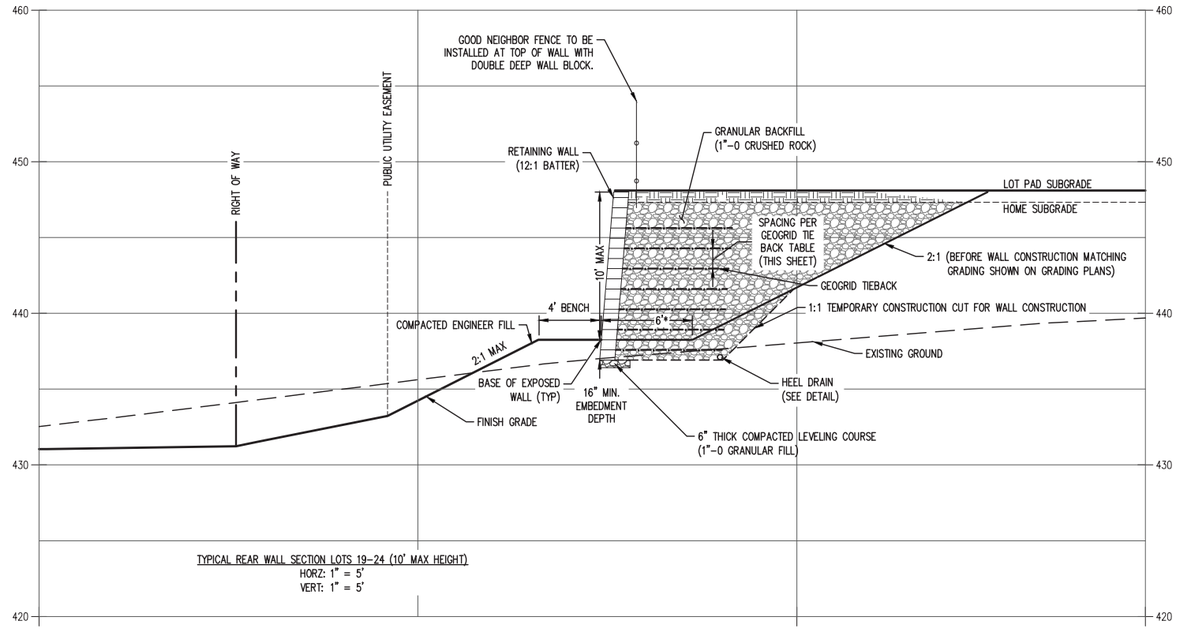
EXPIRES: DEC. 31, 2022

REVISIONS

JOB NUMBER
7858

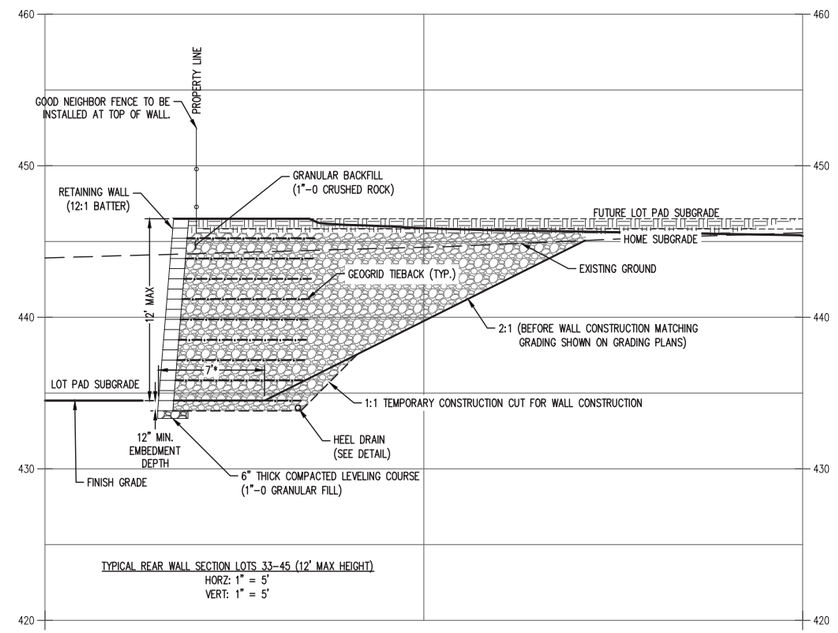
SHEET
C082

AKS DRAWING FILE: 7858PHI RETAINING WALL PLAN AND PROFILE.DWG | LAYOUT: C082



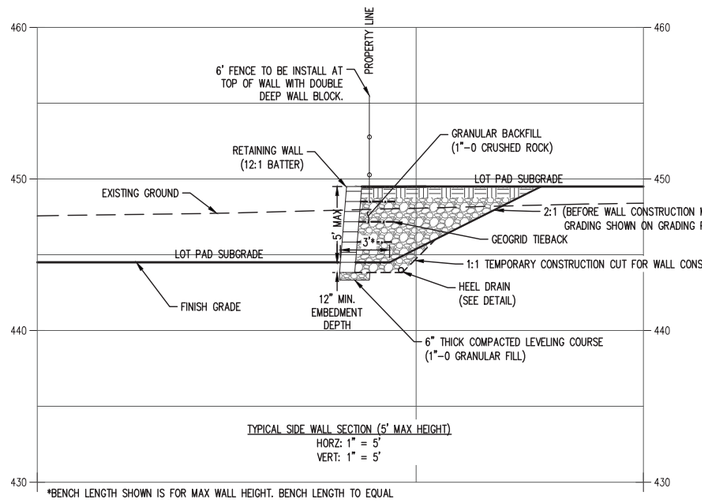
TYPICAL REAR WALL SECTION LOTS 19-24 (10' MAX HEIGHT)
HORZ: 1" = 5'
VERT: 1" = 5'

*BENCH LENGTH SHOWN IS FOR MAX WALL HEIGHT. BENCH LENGTH TO EQUAL WALL BLOCK DEPTH PLUS ½ THE WALL HEIGHT.



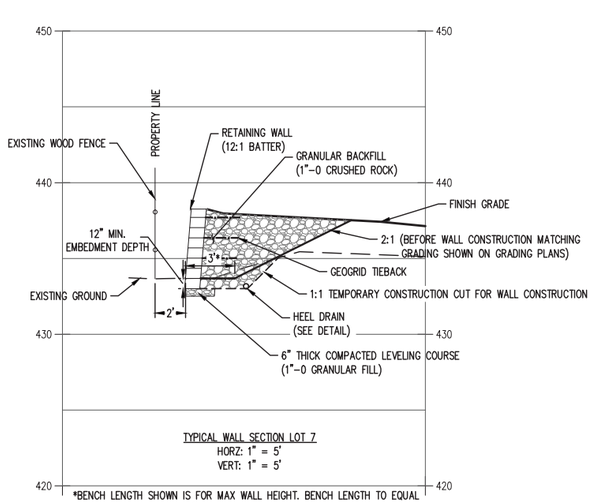
TYPICAL REAR WALL SECTION LOTS 33-45 (12' MAX HEIGHT)
HORZ: 1" = 5'
VERT: 1" = 5'

*BENCH LENGTH SHOWN IS FOR MAX WALL HEIGHT. BENCH LENGTH TO EQUAL WALL BLOCK DEPTH PLUS ½ THE WALL HEIGHT.



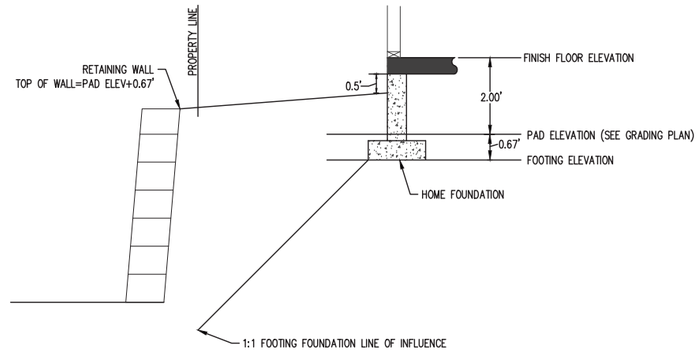
TYPICAL SIDE WALL SECTION (5' MAX HEIGHT)
HORZ: 1" = 5'
VERT: 1" = 5'

*BENCH LENGTH SHOWN IS FOR MAX WALL HEIGHT. BENCH LENGTH TO EQUAL WALL BLOCK DEPTH PLUS ½ THE WALL HEIGHT.



TYPICAL WALL SECTION LOT 7
HORZ: 1" = 5'
VERT: 1" = 5'

*BENCH LENGTH SHOWN IS FOR MAX WALL HEIGHT. BENCH LENGTH TO EQUAL WALL BLOCK DEPTH PLUS ½ THE WALL HEIGHT.



LOT PAD GRADING DETAIL

NTS

NOTE: FINISHED FLOOR ELEVATION SET BY PAD GRADE EXCEPT WHERE MINIMUM FINISH FLOOR ELEVATIONS ARE STATED ON PLANS.

NOTES:

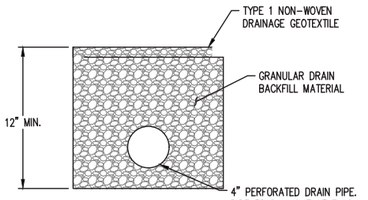
1. GEOTECHNICAL ENGINEER SHALL MONITOR RETAINING WALL CONSTRUCTION, INCLUDING VERIFICATION OF SUITABILITY OF BEARING SOILS, BLOCK PLACEMENT, REINFORCEMENT TYPE (IF APPLICABLE), LENGTH AND SPACING (IF APPLICABLE), DRAIN INSTALLATION, AND BACKFILL PLACEMENT AND COMPACTION.
2. GEOTECHNICAL ENGINEER TO REVIEW SUBGRADE CONDITIONS UNDER THE WALLS TO CONFIRM FOUNDATION SOILS ARE CONSISTENT WITH DESIGN ASSUMPTIONS AND TO PROVIDE ADDITIONAL SUBGRADE RECOMMENDATIONS IF REQUIRED.
3. RETAINING WALL BATTER DEPENDS ON WALL SYSTEM USED AND IN NO CASE SHOULD IT BE LESS THAN 12:1. VERIFY WITH WALL DESIGNER PRIOR TO CONSTRUCTION.
4. GEOGRID TIEBACK LENGTHS SHOWN ARE BASED ON GEOTECH STABILITY CALCULATIONS WHERE THE LENGTH OF THE GRID 0.7 TIMES THE WALL HEIGHT.
5. EMBEDMENT DEPTHS SHOWN ARE MINIMUMS AND SHALL BE VERIFIED BY CONTRACTOR WITH GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF BASE WALL UNIT.
6. REFER TO GEOTECHNICAL ENGINEER FOR MAXIMUM VERTICAL SPACING BETWEEN GEOGRIDS.
7. FOUNDATION SUBGRADE SHALL BE COMPACTED AND BASE LEVELING COURSE SHALL BE CRUSHED DENSE AGGREGATE BASE MATERIAL PER OSSC SECTION 00330 UNLESS OTHERWISE DIRECTED BY GEOTECHNICAL ENGINEER.
8. TYPICAL "AB STONES" BLOCK DIMENSIONS ARE 8"H X 12"D X 18"L.
9. THE GEOTECH SHALL BE PRSENT TO OBSERVE THE SUBGRADE CONDITIONS BENEATH THE WALL TO CONFIRM THE FOUNDATION SOILS ARE CONSITENT WITH THE DESIGN ASSUMPTIONS.

NOTE: SEE GRADING SHEETS FOR LOT PAD GRADING DETAIL FOR HOME SUBGRADE, PAD SUBGRADE, AND FINISH FLOOR ELEVATION RELATIONSHIP.

GEOGRID TIEBACK TABLE

WALL HEIGHT (FT)	MIN. TIEBACK LENGTH (FT)
4	3.0 MIN
6	4.2
8	5.6
10	7.0
12	8.4

NOTE: GEOGRID LENGTH SHALL BE MEASURED FROM BACK OF WALL



HEEL DRAIN DETAIL

NTS

FOUNDATION ENGINEERING, INC.
PROFESSIONAL GEOTECHNICAL SERVICES

HEADWATERS NO.1

OREGON
MARION COUNTY TAX MAP 08 3W 14
SALEM
TAX LOT 204

RETAINING WALL SECTION DETAILS

DESIGNED BY:	BTW
DRAWN BY:	MT
MANAGED BY:	MTA
CHECKED BY:	TJP

DATE: 03/30/2022

REGISTERED PROFESSIONAL ENGINEER
16066PE
Timothy Pfeiffer
OREGON
JULY 21, 1993
TIMOTHY J. PFEIFFER
RENEWS: 12-31-2022

REVISIONS

JOB NUMBER 7858

SHEET C083

AKS DRAWING FILE: 7858PH1 WALL SECTIONS.DWG | LAYOUT: C083