

LOT SLOPE CALCULATION

LOT SLOPE IS THE ELEVATION DIFFERENCE DIVIDED BY HORIZONTAL DISTANCE MULTIPLIED BY 100

HIGHEST ELEVATION POINT OF LOT = 124'
 LOWEST ELEVATION POINT OF LOT = 114'
 HORIZONTAL DISTANCE = 66.7'

$$= \frac{124 - 114}{66.7} \times 100 = 0.149 \times 100 = 14.9\% \text{ LOT SLOPE}$$

HARDSCAPE CALCULATION

LOT AREA = 6000 S.F.
 MAX. HARDSCAPE AREA = 9% OF LOT AREA = 540 S.F. ALLOWED

EXISTING
 UNCOVERED PATIO = 100 S.F.
 WALKWAYS = 140 S.F.
 ROCKERIES = 100 S.F.
 TOTAL = 340 S.F.

PROPOSE
 REMOVE WALKWAY = 40 S.F.
 ADD STAIR = 25 S.F.

GRAND TOTAL HARDSCAPE PROPOSED = 325 S.F.

2021 WSEC - ENERGY COMPLIANCE

PER REMODEL/ALTERATION WORKSHEET

R503.1.1.1 REPLACEMENT FENESTRATION. WHERE SOME OR ALL OF AN EXISTING FENESTRATION UNIT IS REPLACED WITH A NEW FENESTRATION PRODUCT, INCLUDING SASH AND GLAZING, THE REPLACEMENT FENESTRATION UNIT SHALL MEET THE APPLICABLE REQUIREMENTS FOR U-FACTOR AND SHGC IN TABLE R402.1.3.

R503.1.1 BUILDING ENVELOPE
 EXCEPTION 2 - EXISTING CEILING, WALL OR FLOOR CAVITIES EXPOSED DURING CONSTRUCTION PROVIDED THAT THESE CAVITIES ARE FILLED WITH INSULATION. 2X4 FRAMED WALLS TO HAVE R-15 MIN. AND 2X6 FRAMED WALLS R-21 MIN.

PROPOSED = REPLACE EXISTING 10'-0" WINDOW TO A 10'-0" FRENCH DOOR U-FACTOR = ≤ 0.30

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- S505- FOUNDATION DETAILS



VICINITY MAP PROJECT

PROJECT DATA

TAX PARCEL # 148330-0555
 SITE ADDRESS: 2453 64TH AVE SE
 MERCER ISLAND, WA 98040

OWNER & CONTACT PERSON: SEYSAN FARHAD
 CELL: (253) 653-7979
 SEYSAN@GMAIL.COM

LEGAL DESCRIPTION

CENTRAL ADD TO EAST SEATTLE
 PLat Block: 6
 Plat Lot: 18-19

ZONING

ZONING: R-8.4
 LOT AREA: 6,000 SF
 MAX. LOT COVERAGE 40% OF LOT AREA = 2,400 SF
 SETBACKS: FRONT 20'-0"
 SIDE 5'-0" MIN, TOTAL 15'-0"
 REAR 25'-0"
 MAX. HEIGHT 30'-0" ABOVE ABE

SCOPE OF WORK

CONSTRUCTION OF A NEW COVERED DECK EXTENDING OVER EXISTING PATIO. REMOVED 39 S.F. PAVERS TO INSTALL NEW SPIRAL STAIR. REPLACE EXISTING 10'-0" WINDOW IN LIVING ROOM AT 2ND LEVEL WITH A 10'-0" FRENCH DOOR. NO OTHER CHANGES TO THE EXISTING HOUSE. TOP OF NEW DECK ROOF IS UNDER EXISTING MAXIMUM HEIGHT.

LOT COVERAGE CALCULATION

GROSS LOT AREA: 6,000 SF
 MAX. LOT COVERAGE: 40% OF LOT AREA (2,400 SF)

EXISTING LOT COVERAGE

MAIN STRUCTURE ROOF AREA 1,698 S.F.
 DRIVEWAY 220 S.F.
 WALKWAYS & UNCOVERED PATIO 150 S.F. (PERVIOUS 50%)
 TOTAL EXISTING = 2,038 S.F.

PROPOSED NEW LOT COVERAGE

MAIN STRUCTURE ROOF AREA 1,698 S.F.
 DRIVEWAY 220 S.F.
 WALKWAYS & UNCOVERED PATIO 150 S.F. (PERVIOUS 50%)
 REMOVE WALKWAY = 40 S.F.
 NEW COVERED DECK & STAIR 330 S.F.
 PROPOSED TOTAL LOT COV. = 2,358 S.F. (39.3% OK)

HEIGHT CALCULATION

A = 119' a = 32.2'
 B = 120.5' b = 50.00'
 C = 117.9' c = 32.2'
 D = 117.5' d = 50.00'

BENCHMARK = 116'
 LOCATED AT BASEMENT
 TOP OF EXISTING FINISH FLOOR

$$\frac{(A \times a) + (B \times b) + (C \times c) + (D \times d)}{a + b + c + d} = \text{AVERAGE BUILDING ELEVATION (ABE)}$$

WHERE A, B, C, D = EXISTING GROUND ELEVATION MIDPOINT OF RECTANGLE SEGMENT AND
 a, b, c, d = LENGTH OF RECTANGLE SEGMENT

$$\frac{(119 \times 32.2) + (120.5 \times 50) + (117.9 \times 32.2) + (117.5 \times 50)}{32.2 + 50 + 32.2 + 50} = \frac{19527}{164.4} = \text{ABE} = 118.77'$$

MAX. ALLOWED ELEVATION 118.77' + 30' = 148.77'
 PROPOSED MAX. ELEVATION = 229.10'

PROJECT:

NEW DECK
 MERCER

PROJECT ADDRESS:

2453 64th AVE S
 MERCER ISLAND 98040

REVISIONS

DATE	DESCRIPTION

SHEET NAME:

SITE PLAN AND
 PROJECT INFO

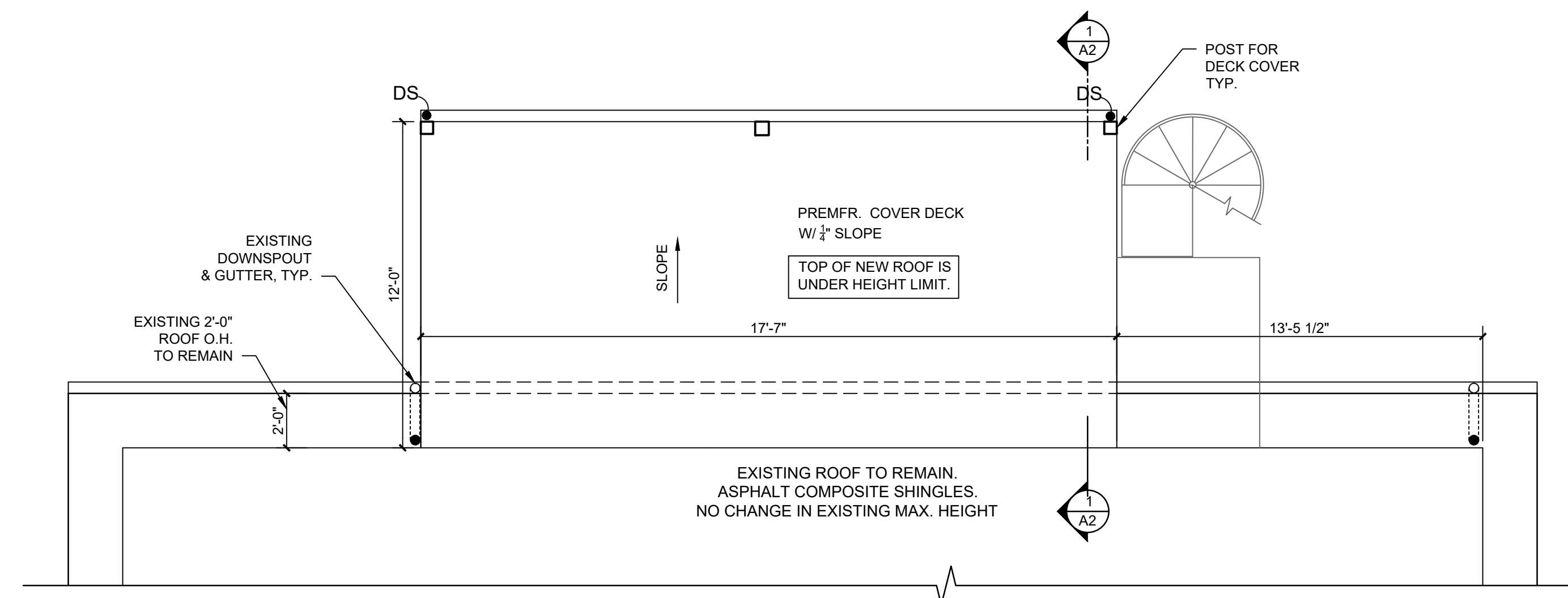
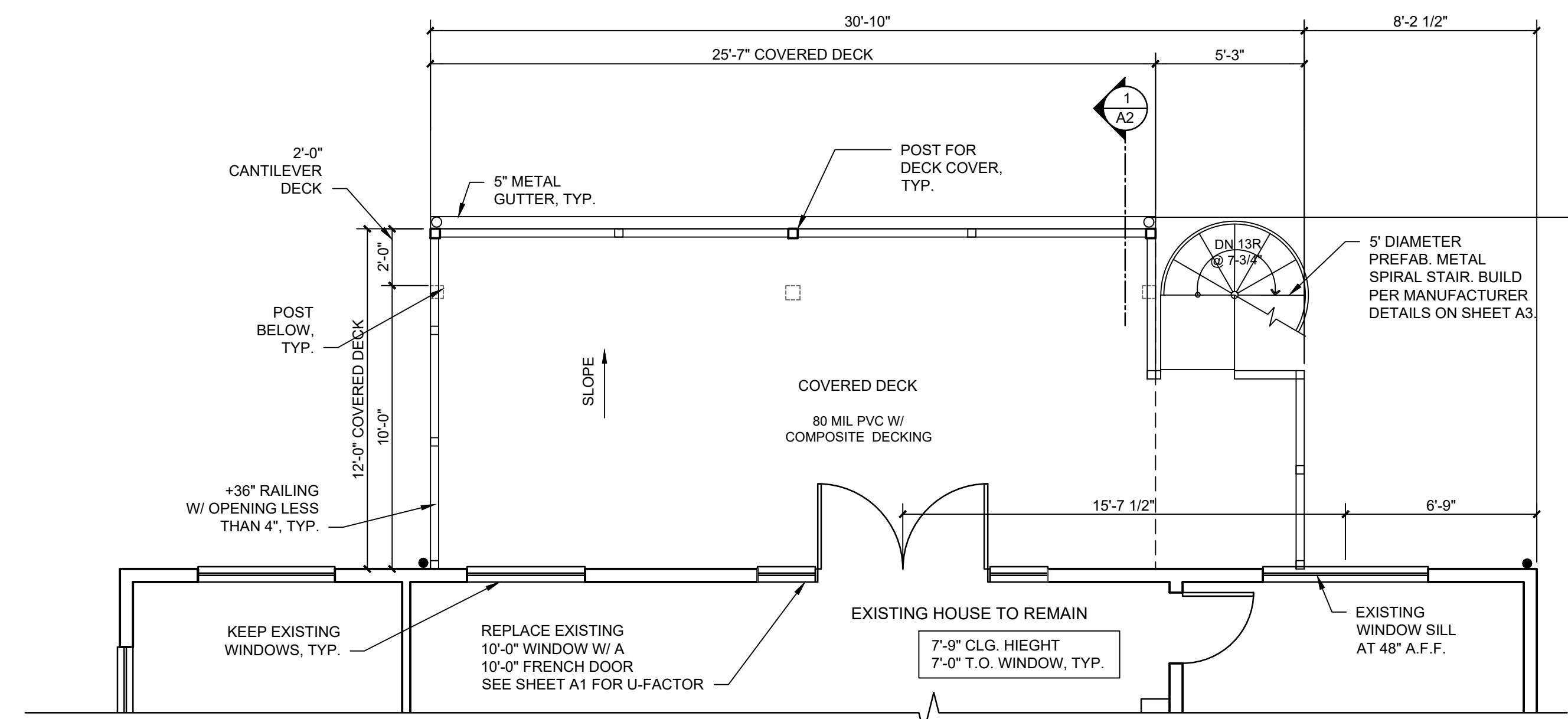
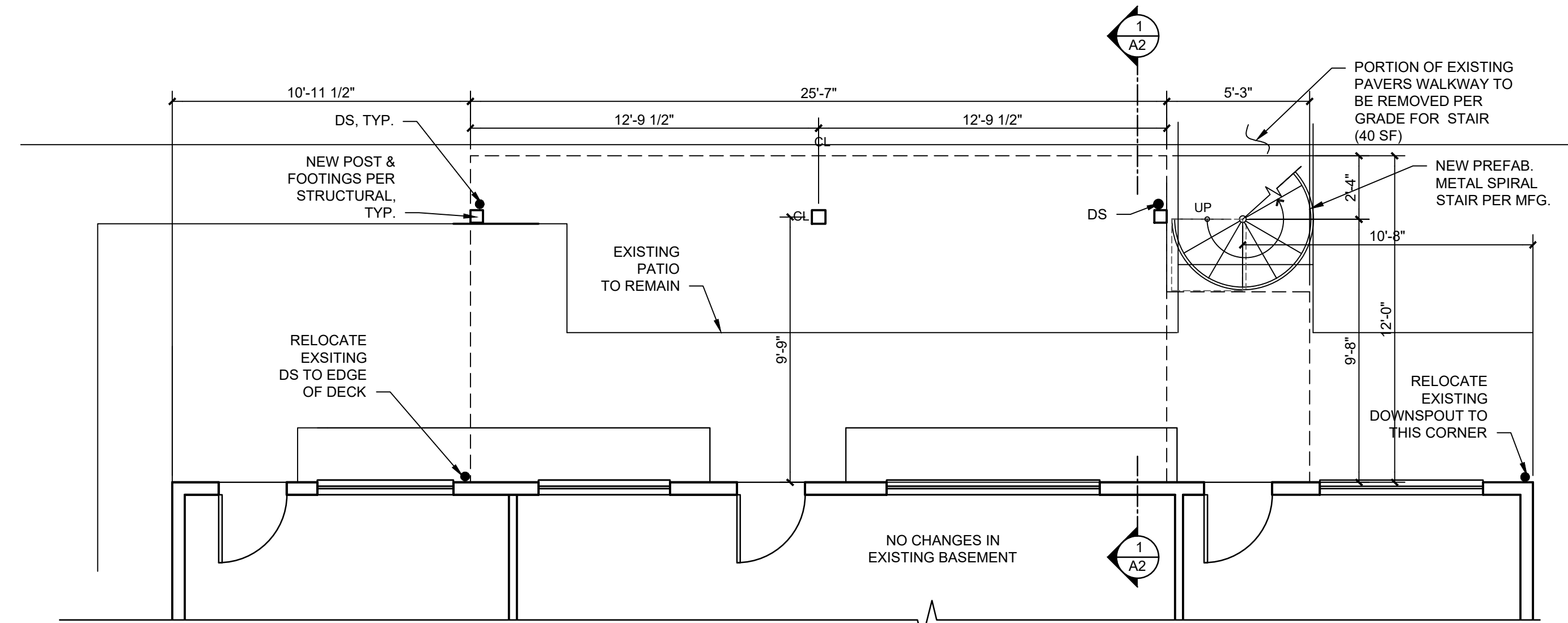
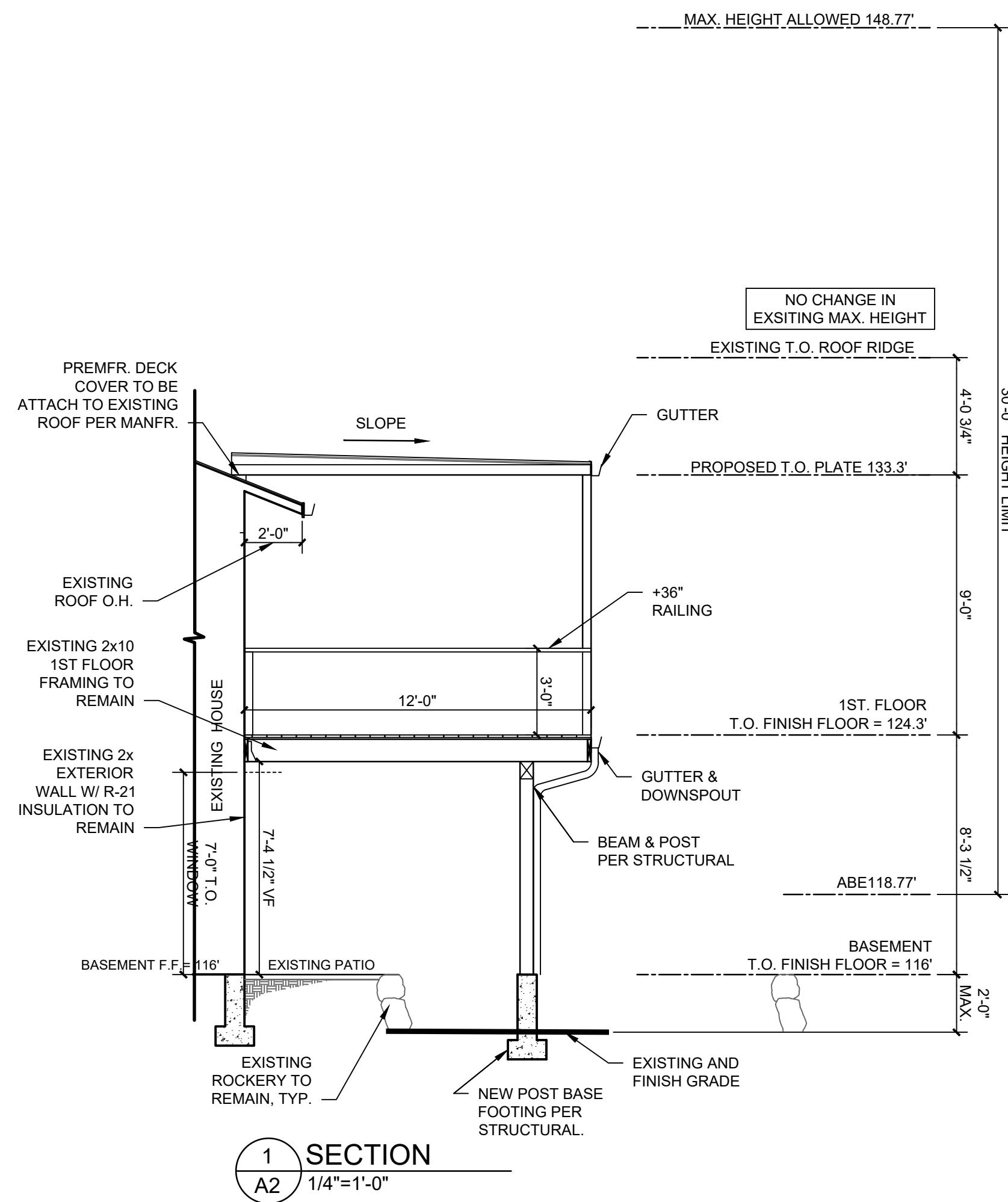
PROJECT NUMBER:

DATE: 8/9/24

DRAWN: RV

SHEET:

A1



PROJECT:

NEW DECK
MERCER

PROJECT ADDRESS:

2453 64th AVE S
MERCER ISLAND 98040

REVISIONS

DATE	DESCRIPTION

SHEET NAME:

FLOOR PLANS
AND SECTION

PROJECT NUMBER:

DATE: 8/9/24

DRAWN: RV

SHEET:

A2

STRUCTURAL NOTE & CONSTRUCTIONS CRITERIA:

1. THE DESIGN IS BASED ON CODE REQUIREMENTS IBC2021, IRC2018 WITH 12 PSF FLOOR DEAD LOAD, 60 PSF DECK LIVE LOAD, 12 PSF ROOF DEAD LOAD, 25 PSF SNOW LOAD.

2. MINIMUM SOIL BEARING CAPACITY IS ASSUMED 1500 PSF FOR THE DESIGN.

3. TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE JOB EXCEPT WHERE SPECIFICALLY DETAILED OR NOTED OTHERWISE ON THE DRAWINGS.

4. RESOLVE ANY CONFLICTS ON THE PLANS WITH THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. DIMENSIONS TAKE PRECEDENCE OVER SCALE OF DRAWINGS. HOWEVER, ANY SIGNIFICANT CONFLICTS SHOULD BE RESOLVED AS NOTED.

5. STRUCTURAL DIMENSIONS CONTROLLED BY EXISTING STRUCTURES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION AND/OR FABRICATION. ALL ELEVATIONS AND DIMENSIONS OF EXISTING AND NEW STRUCTURES SHOWN ON THE DRAWINGS ARE BASED ON LIMITED FIELD VERIFICATION OF AS-BUILT DIMENSIONS. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS REGARDLESS OF DIMENSIONS AND ELEVATIONS NOTED ON PLANS.

6. THE STRUCTURAL ANALYSIS AN DESIGN OF THIS PROJECTS IS BASED ON THE ASSUMPTIONS THAT THE EXISTING STRUCTURAL COMPONENTS SUCH AS WOOD FRAMES AND FOUNDATION SLAB ARE IN SOUND CONDITIONS AND IN ACCEPTABLE INTEGRITY AND ENGINEER IS NOT IN CHARGE IF THERE IS ANY EXISTING DEFICIENCIES ON THESE STRUCTURAL COMPONENTS.

7. IF CONTRACTOR OBSERVED ANY SIGNIFICANT STRUCTURAL DEFICIENCIES DURING THE CONSTRUCTION OR SIGNIFICANT CONFLICTS BETWEEN EXISTING AND DRAWING, THIS SHOULD BE BROUGHT TO THE ATTENTION OF ENGINEER

8. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND THE SPECIFICATIONS.

9. ALL APPLICABLE REQUIREMENTS OF THE WASHINGTON CONSTRUCTION AND GENERAL INDUSTRY SAFETY ORDERS, THE OCCUPATIONAL SAFETY AND HEALTH ACT AND THE CONSTRUCTION SAFETY ACT SHALL BE MET.

10. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING AND NECESSARY SUPPORT TO ACHIEVE THE FINISHED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND ENFORCING ALL CONSTRUCTION LOAD LIMITS ON THE STRUCTURE.

11. ALL FOUNDATION FOOTING BASE SHALL BE EXCAVATED TO THE LEVEL SHOWN ON PLANS AND THE SOIL UNDER THE FOOTING SHALL BE COMPACTED TO ACCEPTABLE LEVEL BEFORE PLACING REBAR AND CONCRETE POURING.

12. ALL NAILS SHALL CONFORM TO ASTM F1667. ALL NAILING SHALL BE WITH COMMON WIRE NAILS OR APPROVED EQUAL. ALL NAILING SHALL BE POWER DRIVEN FASTENERS MEETING THE REQUIREMENTS I.C.C. ESR-1539 OR APPROVED EQUAL. ALL NAILS AND FASTENERS IN PRESSURE TREATED OR FIRE RETARDANT WOOD SHALL BE HOT-DIPPED GALVANIZED STEEL , STAINLESS STEEL , SILICON BRONZE, COPPER, OR APPROVED EQUAL, TYPICAL UNLESS NOTED OTHERWISE TO MEET THE REQUIREMENTS OF I.B.C. SECTION 2304.9.5. NAILS SPECIFIED BY PENNYWEIGHT SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: NAIL SIZES SPECIFIED HERE AND ON MANUFACTURE TABLES ARE ACCORDING TO FOLLOWING:

SIZE	LENGTH	DIAMETER	BENDING YIELD
6d	2"	0.113"	100,000 PSI
8d	2-1/2"	0.131"	100,000 PSI
10d	3"	0.148"	90,000 PSI
12d	3-1/2"	0.148"	90,000 PSI
16d	3-1/2"	0.162"	90,000 PSI

13. WOOD: SAWN LUMBER FRAMING: ALL LUMBER FOR DECK STRUCTURE SHALL BE PRESSURE TREATED AND COMPLY WITH THE LATEST EDITION OF GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WES COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. ALL WOOD COMPONENTS SHALL BE (DOUGLAS-FIR LARCH) DF NO.2 AND BETTER EXCEPT OTHERWISE NOTED.

14. ALL THE HARDWARE USED AND MENTIONED IN THIS PLAN SHALL BE INSTALLED ACCORDING TO MANUFACTURE RECOMMENDATIONS AND PROVIDED TABLES.

15. ALL CONNECTIONS AND SIMPSON TIE FASTENERS SHALL BE PERFORMED COMPLY WITH THE GUIDELINE AND REQUIREMENTS PROVIDED BY MANUFACTURER.

16. ALL SIMPSON TIE POST BASES AND POST CAPS SHALL BE SPECIAL CORROSION PROTECTION COATED PER MANUFACTURER.

17. THE DECKING MATERIAL SHALL BE COMPOSITE DECKING PER ARCHITECTURAL.

ARCHITECTURAL.

18. ALL REINFORCEMENT SHALL HAVE MINIMUM YIELD STRENGTH OF 60,000 PSI

19. CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI

20. MINIMUM COVER FOR CONCRETE TOUCHING EARTH SHALL BE 3.0 INCH OTHERWISE SHALL BE 2.0 INCH

21. DRAWING LIST:
 SHEET S01: GENERAL NOTES
 SHEET S02: DECK STRUCTURAL PLAN VIEW
 SHEET S03: DECK STRUCTURAL SECTION VIEW
 SHEET S04: DECK STRUCTURAL SECTION VIEW
 SHEET S05: DECK FOUNDATION DETAILS

PROJECT OWNER AND ADDRESS:
 FARHAD NAJAFIAN SEYSAN
 2453 64TH AVE S MERCER ISLAND
 98040

PROJECT:
 NEW DECK DESIGN

TECLOADS LLC
 INFO@TECLOADS.COM
 206-660-8979

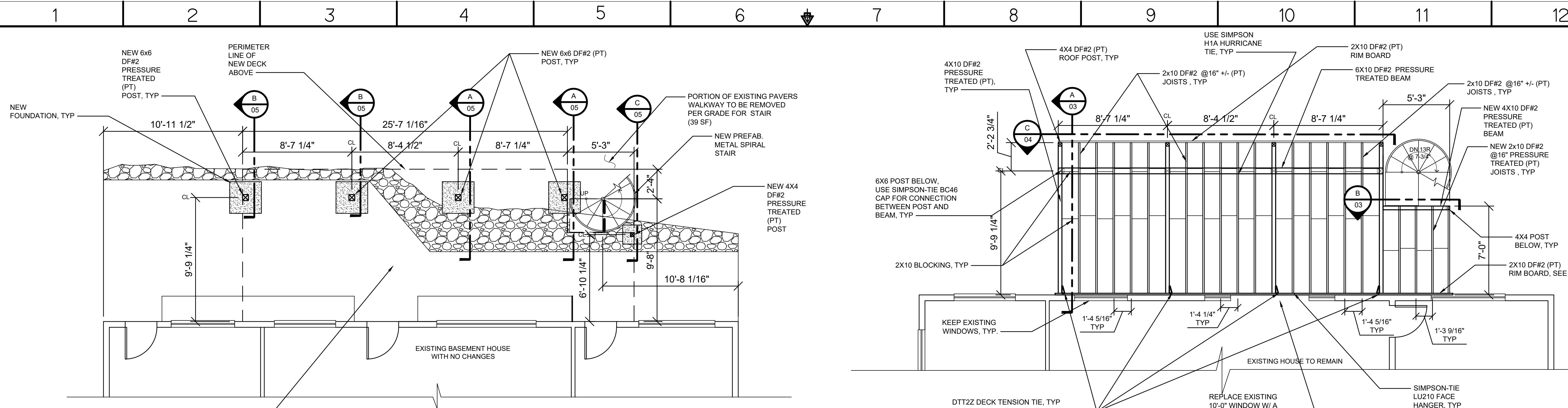


GENERAL NOTES

SHEET NO. S01 SC. NTS 09/26/24

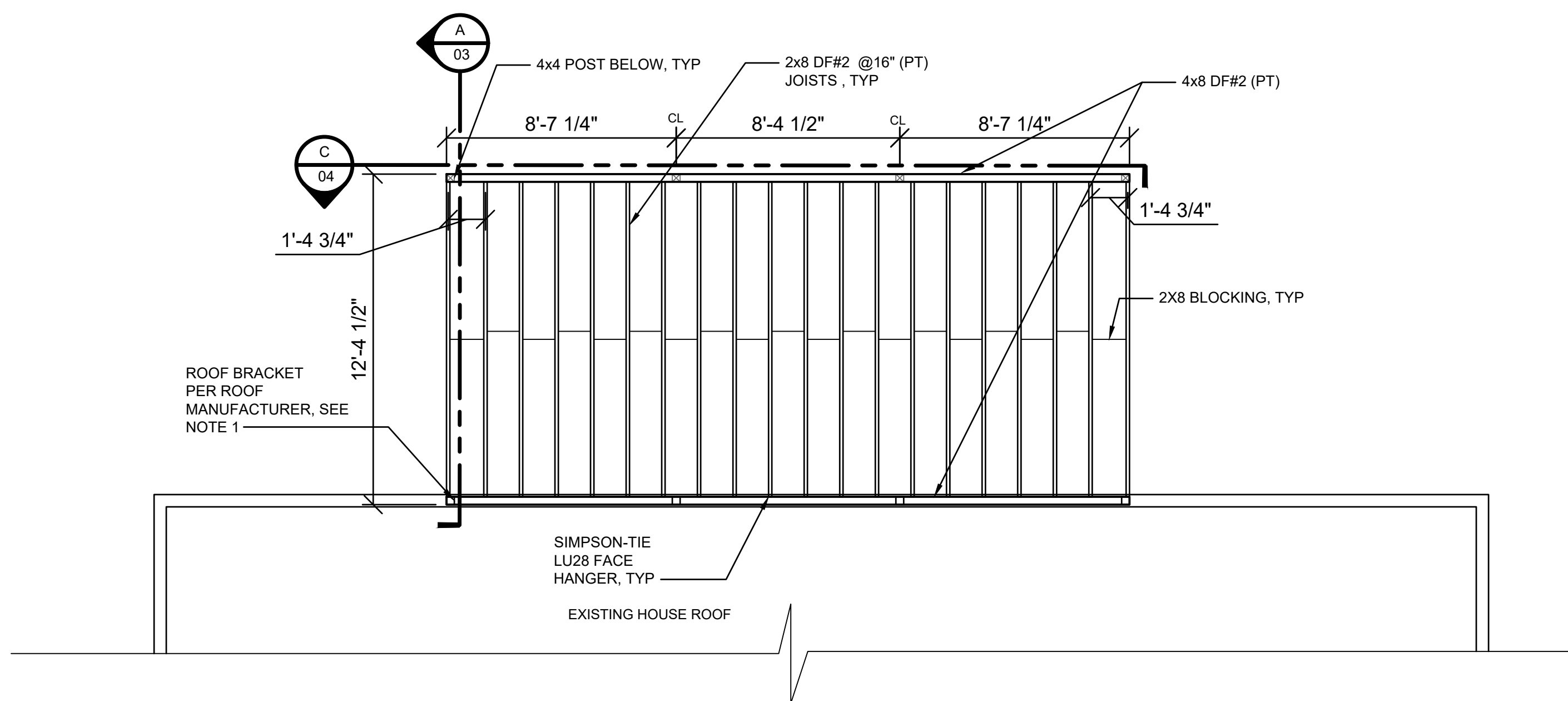


EXP. 01/28/2025
 09/29/2024



DECK BASE FLOOR STRUCTURAL PLAN
SCALE: 1/4" = 1'-0"

DECK 1ST FLOOR STRUCTURAL PLAN
SCALE: 1/4" = 1'-0"



DECK ROOF STRUCTURAL PLAN
SCALE: 1/4" = 1'-0"

NOTES:

- BRACKET SHALL BE PROVIDED BY ROOF MANUFACTURER TO HOLD THE 6X8 BEAM SHOWN ON PLANS. THE BRACKET SHALL HAVE MINIMUM NOMINAL CAPACITY OF 2100 LB BEARING AND 200 LB LATERAL.
- DECK TENSION TIE SHALL BE SIMPSON-TIE DTT2Z WITH 1/2" ANCHOR BOLT AND (8) 1/4X1 1/2" SDS FASTENER
- TO CONNECT THE RIM BOARD INTO EXISTING WALL / FLOOR, USE MINIMUM 3/8" φ X5" RSS STRUCTURAL LAG SCREW OR SIMILAR AT EVERY 6" INTO THE TOP PLATE OF WALL AND TWO LAG SCREWS AT EVERY EXISTING STUD OR EXISTING FLOOR JOISTS ALONG THE HOUSE WALL.

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98040

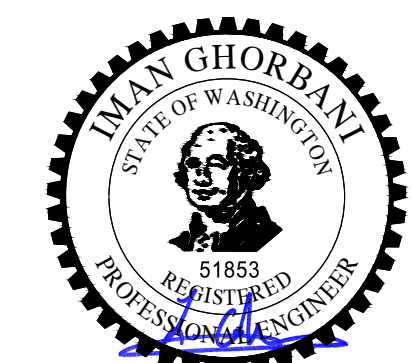
PROJECT:
NEW DECK DESIGN

TECLOADS LLC
INFO@TECLOADS.COM
206-660-8979

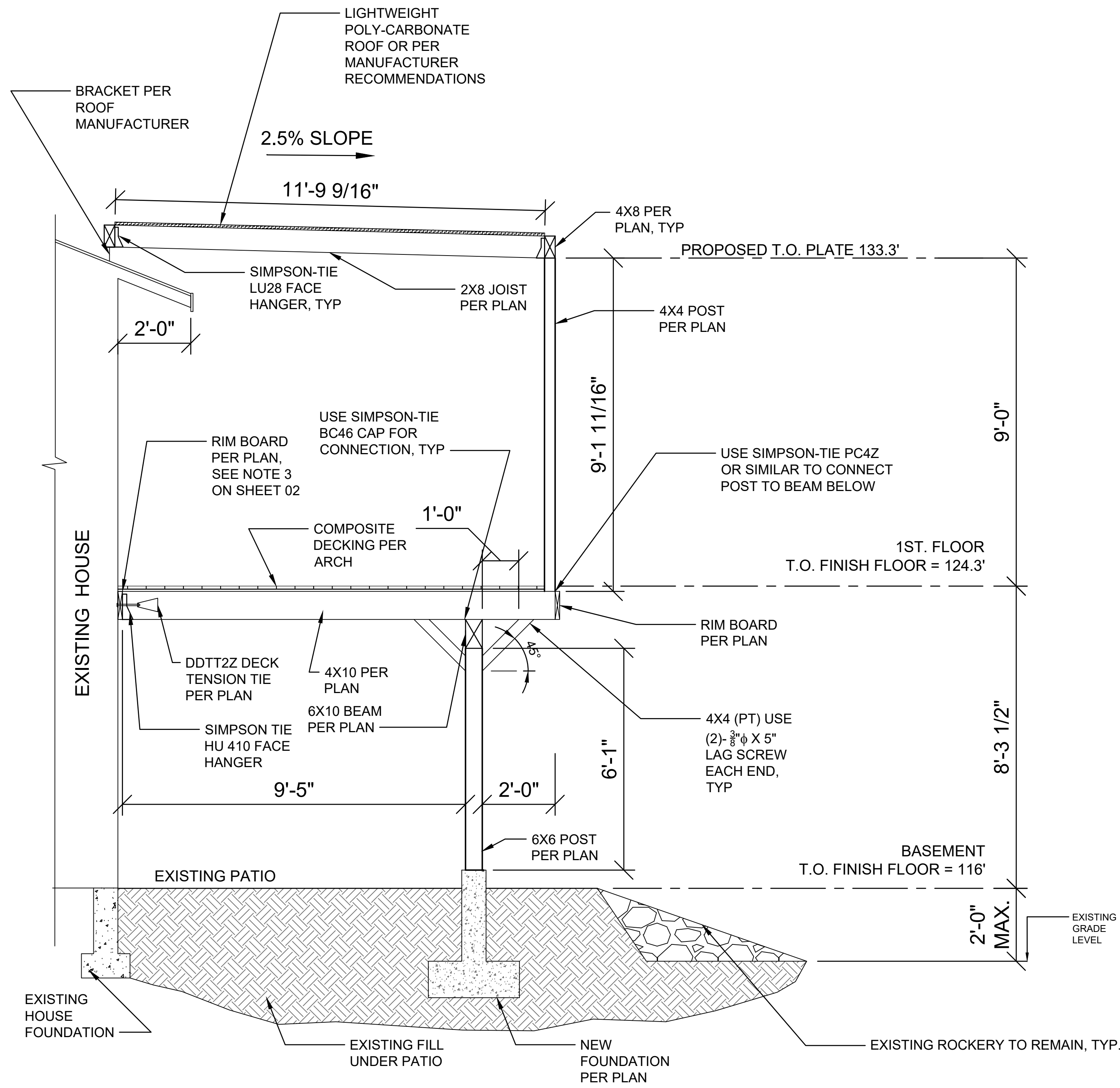


DECK STRUCTURAL PLAN VIEWS

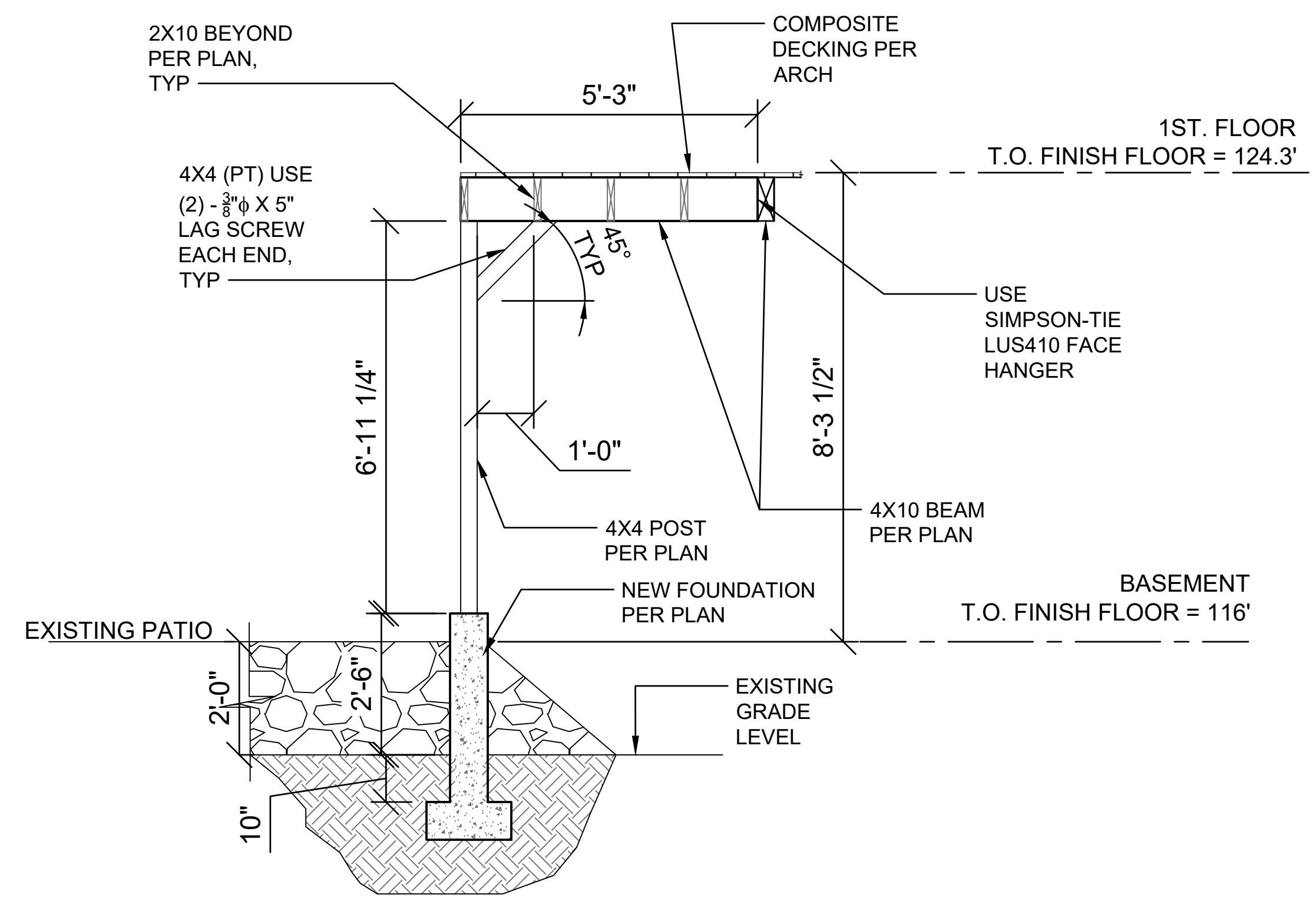
SHEET NO. S02 SC. 1/4"=1' 09/26/24



EXP. 01/28/2025
09/29/2024



SECTION A
SCALE: 1/2" = 1'-0"
01



SECTION B
SCALE: 1/2" = 1'-0"
01

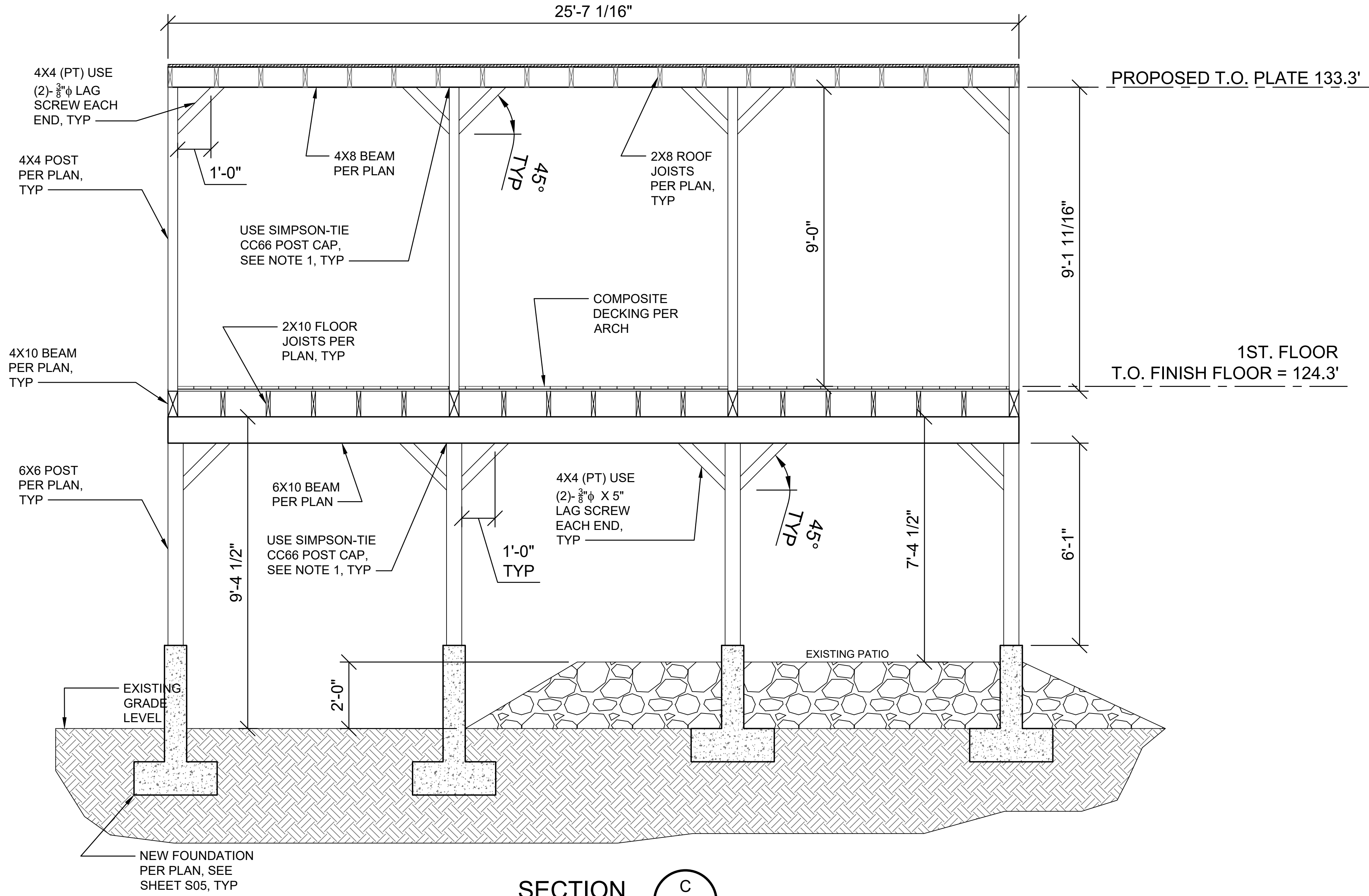
PROJECT OWNER AND ADDRESS: FARHAD NAJAFIAN SEYSAN 2453 64TH AVE S MERCER ISLAND 98040	PROJECT: NEW DECK DESIGN	TECLOADS LLC INFO@TECLOADS.COM 206-660-8979	DECK STRUCTURAL SECTION VIEW	
			SHEET NO. S03	SC. 1/2"=1' 09/26/24



EXP. 01/28/2025
09/29/2024

1 2 3 4 5 6 7 8 9 10 11 12

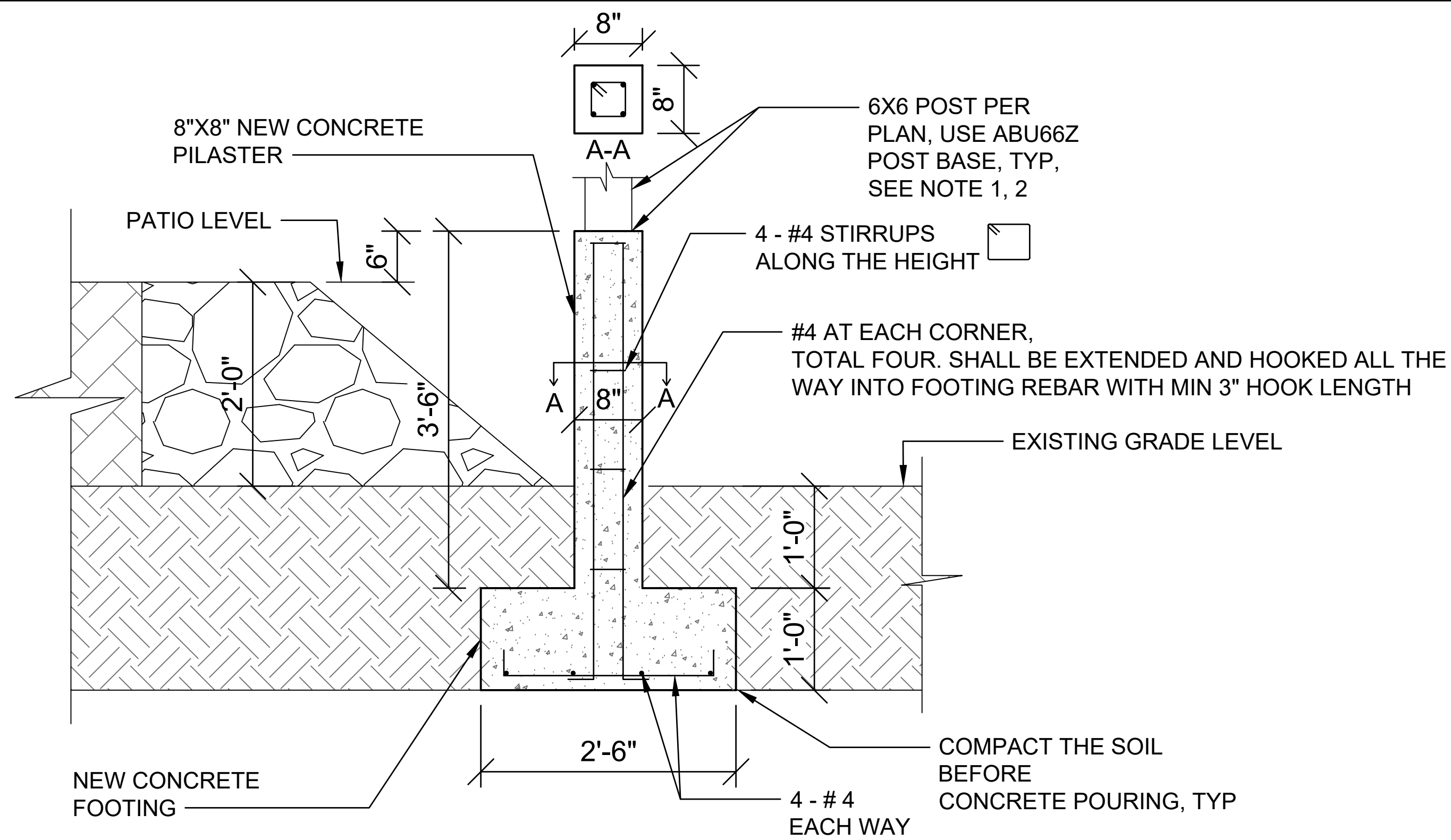
NOTES:
 1. SPECIAL CORROSION PROTECTION SHALL BE APPLIED ON ALL POST CAP AND POST BASES PER SIMPSON-TIE MANUFACTURER.



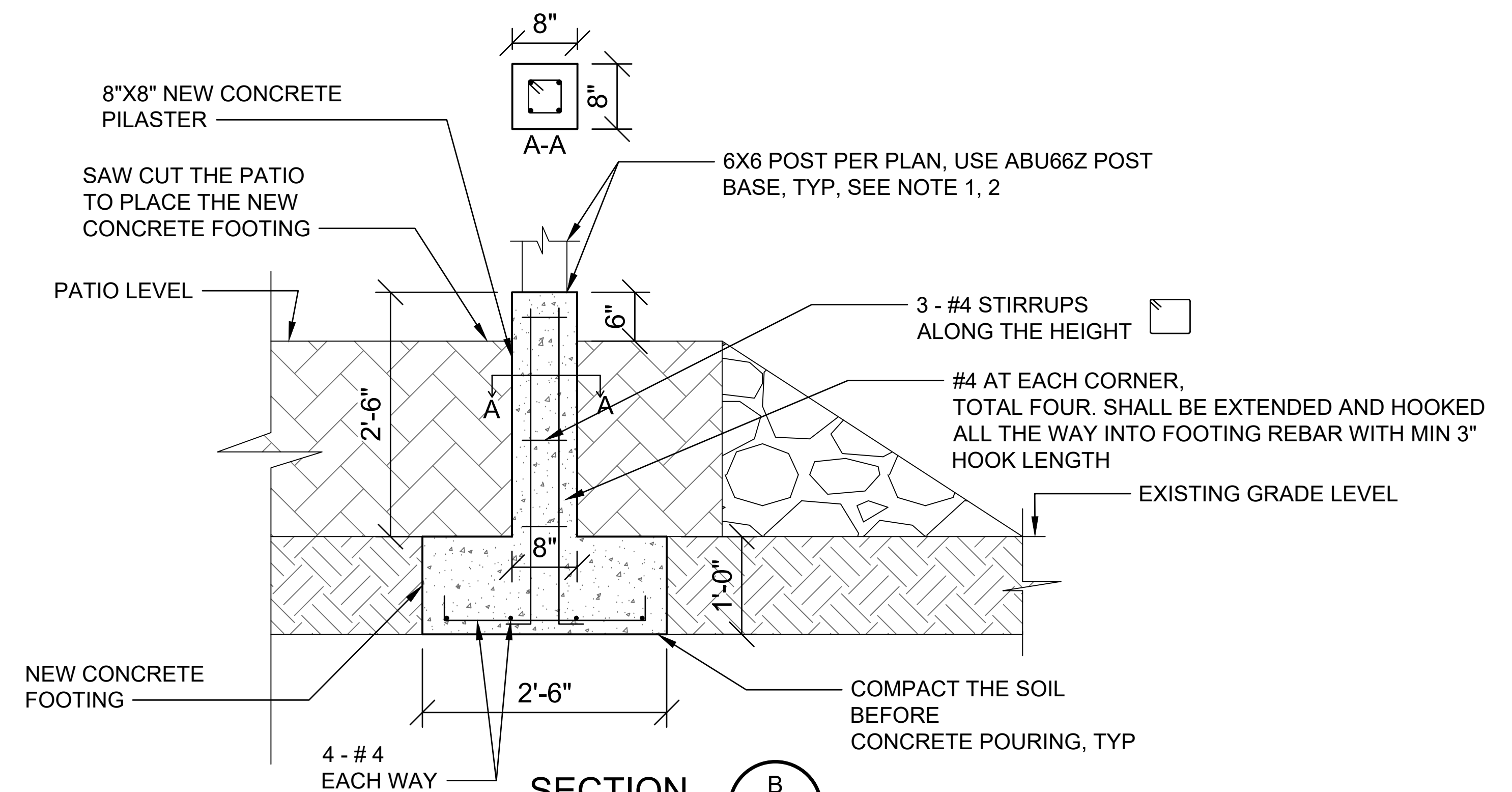
SECTION C
 SCALE: 1/2" = 1'-0"

PROJECT OWNER AND ADDRESS: FARHAD NAJAFIAN SEYSAN 2453 64TH AVE S MERCER ISLAND 98040	PROJECT: NEW DECK DESIGN	TECLOADS LLC INFO@TECLOADS.COM 206-660-8979	DECK STRUCTURAL SECTION VIEW	
			SHEET NO. S04	SC. 1/2"=1'
			09/26/24	

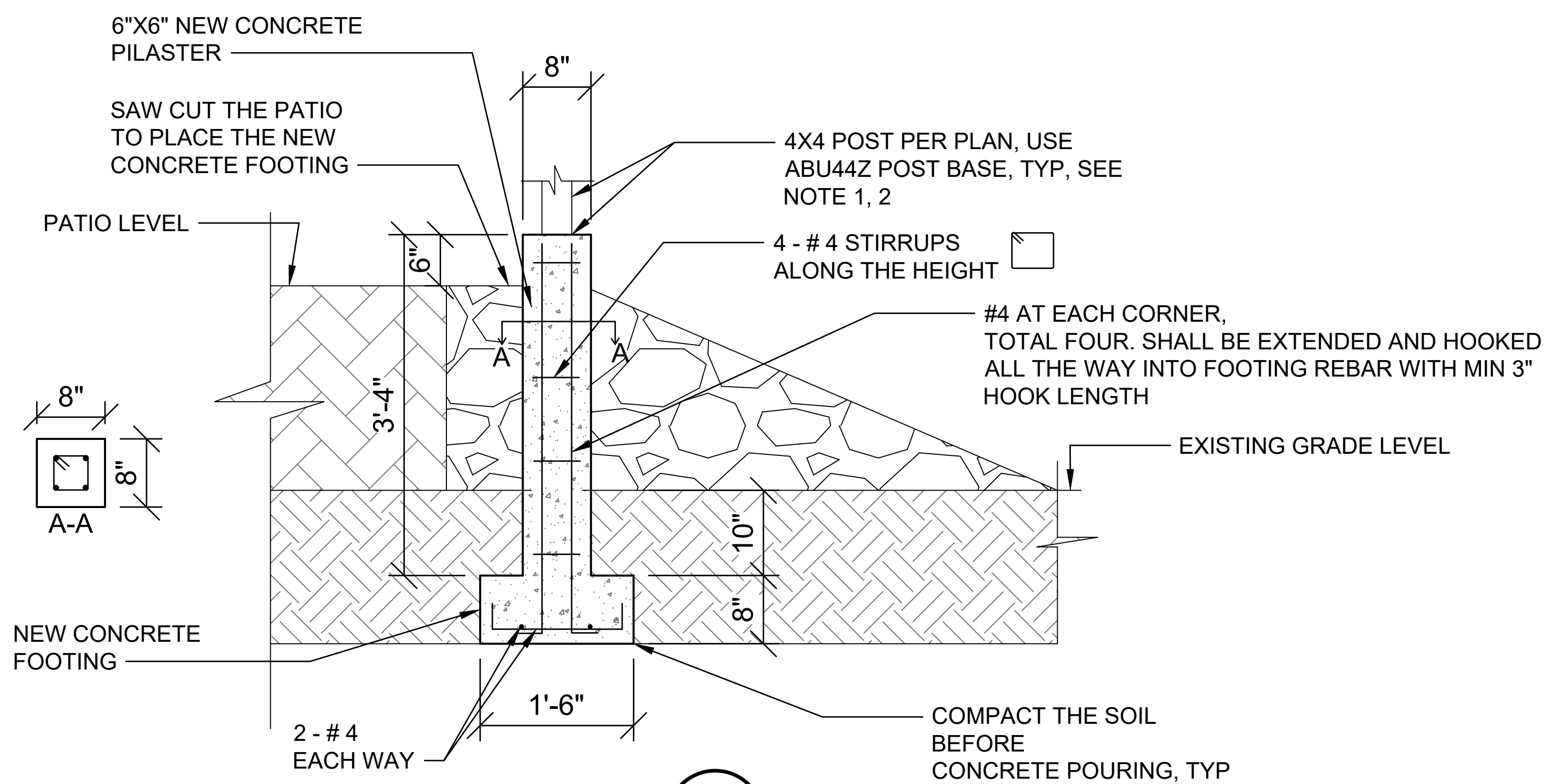




SECTION A-A
SCALE: 1" = 1'-0"



SECTION B-B
SCALE: 1" = 1'-0"



SECTION C-C
SCALE: 1" = 1'-0"

NOTES:

1. SIMPSON STRONG-TIE ABU66Z AND ABU44Z SHALL BE USED FOR 6X6 AND 4X4 POST BASE RESPECTIVELY. SPECIAL CORROSION PROTECTION NEEDS TO BE APPLIED ON ALL HARDWARE AND FASTENER PER SIMPSON-TIE MANUFACTURER.
2. IT IS RECOMMENDED ALL POSTS TO BE WRAPPED AND PROTECTED MINIMUM 1 FEET FROM CONCRETE SURFACE TO PROTECT THE POST BASE FROM WET AND RAIN.
3. CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.
4. MINIMUM COVER FOR CONCRETE FOOTING TOUCHING EARTH SHALL BE 3.0 INCH OTHERWISE SHALL BE 1.5 INCH.

PROJECT OWNER AND ADDRESS:
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2453 64TH AVE S MERCER ISLAND
98040

PROJECT:
NEW DECK DESIGN

TECLOADS LLC
INFO@TECLOADS.COM
206-660-8979

DECK FOUNDATION FOUNDATION DETAILS

SHEET NO. S05 SC. 1"=1' 09/26/24



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09/29/2024