

Bob

Please find attached plans and section for the proposed building upgrade. I have added some new details and revised the other that you have seen before. Also note the following.

1. The new shear walls must have continuous vertical reinforcing with code required laps or mechanical splices in the walls and at the ends of the walls. The vertical reinforcing steel at the ends of the shear walls must be drilled continuous through the existing members while avoiding the existing reinforcing steel. The upper shear walls are typically 12 inches thick. The lower shear walls are typically 16 inches thick. I would estimate the reinforcing in the shear walls to be 2 layers of # 5 at 12 inches on center each way one at each face. Figure on 4 # 6's continuous at each end of the shear walls.
2. At the following grid locations: A 2, A 3, A 6, B 5 and C 2 (see plan) there are existing concrete columns that occur at new concrete shear wall. The columns, beams and double tees must be shored at these locations, until the new footings and walls reach design strength at these locations.
3. I am not sure of the length of the new piles. I spoke to a drill driver in the area and he estimated the length to be about 60 feet.
4. The typical shear wall foundation plan is shown on plan 102. This is typical at each shear wall location.
5. All drag struts shown on the plans, must continuous with connections at each end and at the shear walls as they deliver the load to the shear walls. At the locations where the drag struts meet the end of the shears wall, there will be a lot of congestion and complexity because so many things loads are being transferred at these locations.
6. The existing topping slab is likely not adequate to deliver the shear loads as a diaphragm at all upper levels. So I have added some connections that tie the double tees together. This connection will be required at all the elevated levels. See section 200 and 201.

7. The new helical piles below the new shear walls can carry very limited lateral load. To transfer the lateral load into the ground, I have suggested a series of grade beams per section. This design will need to be verified by a soils engineer. See plan 110 and section 111.

8. We did some limited investigation to try to determine the location of the reinforcing steel. Care must be taken not to damage reinforcing steel in the existing pc concrete members.

9. Typical drag struts shown on the plans are MC 18 x 42.7 with 3/4 bolts at 24 inches on center.

10. If you have any questions, please give me a call.

Dale Kaemingk

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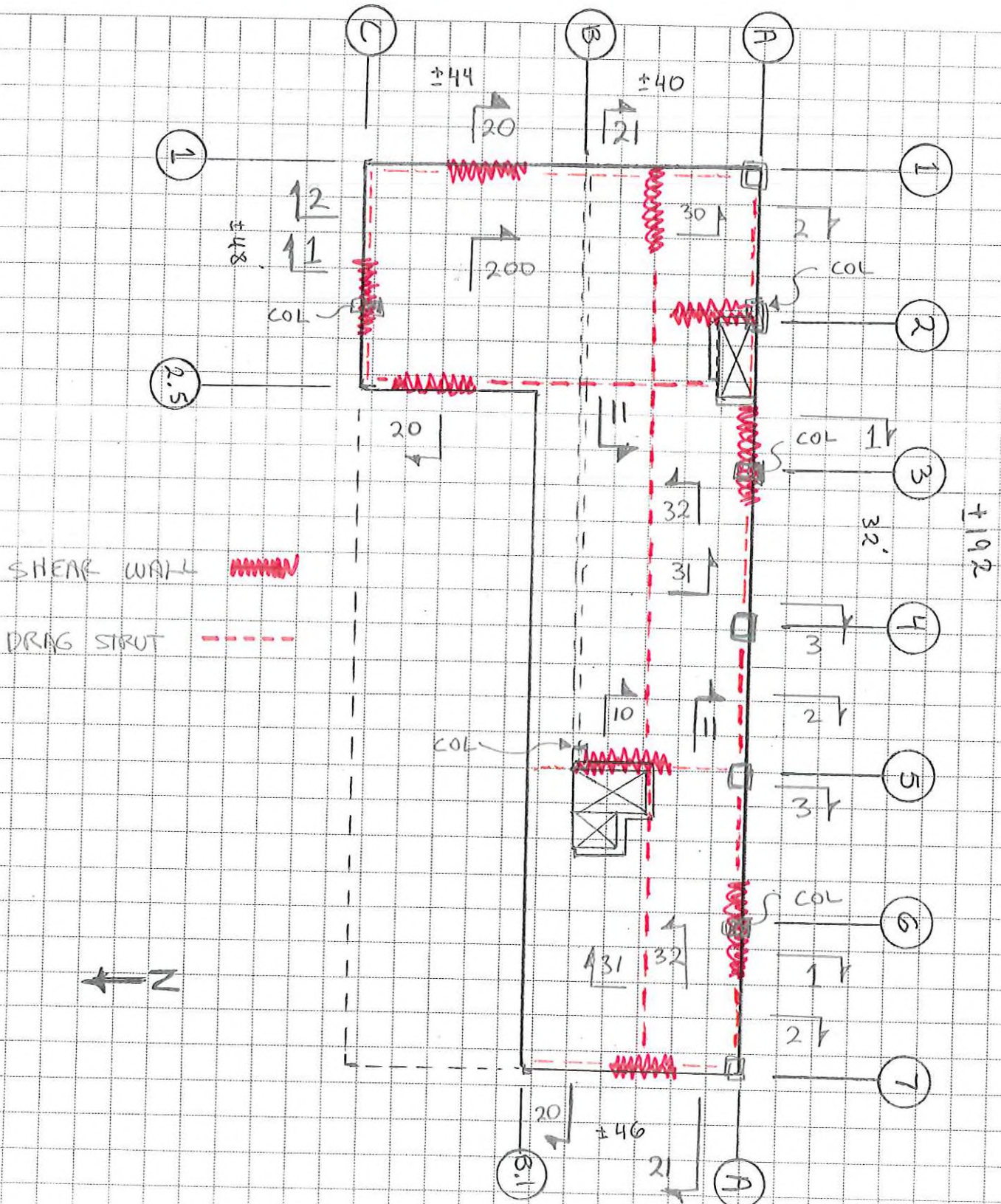
DATE 6-9-14

SUBJECT 2ND, 3RD, 4TH, ROOF

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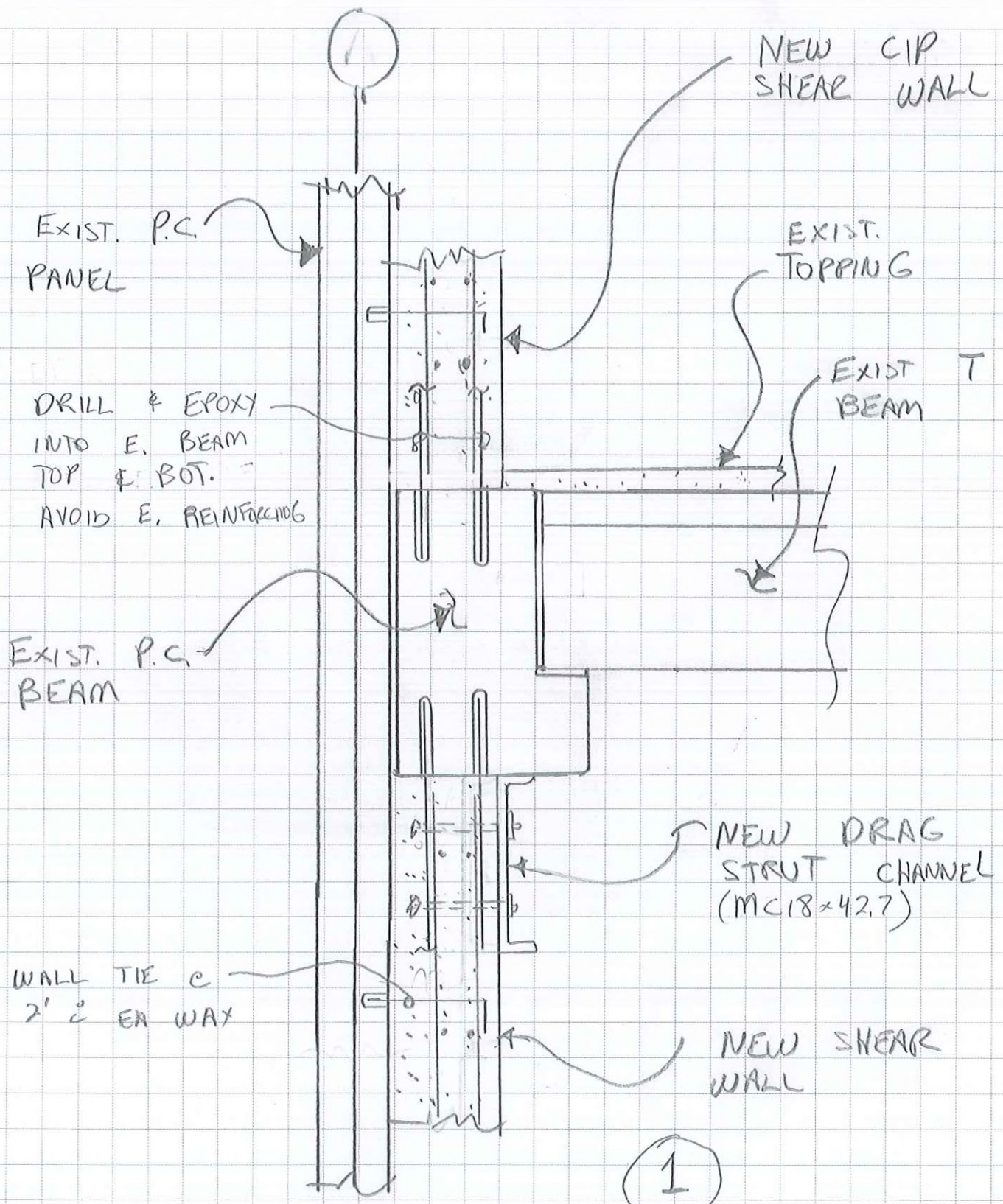
SHEAR WALL LOCATIONS



PROJECT # _____ PROJECT 444 DATE 6-9-14

SUBJECT _____ 1 SHEET 02 OF _____

By D/K



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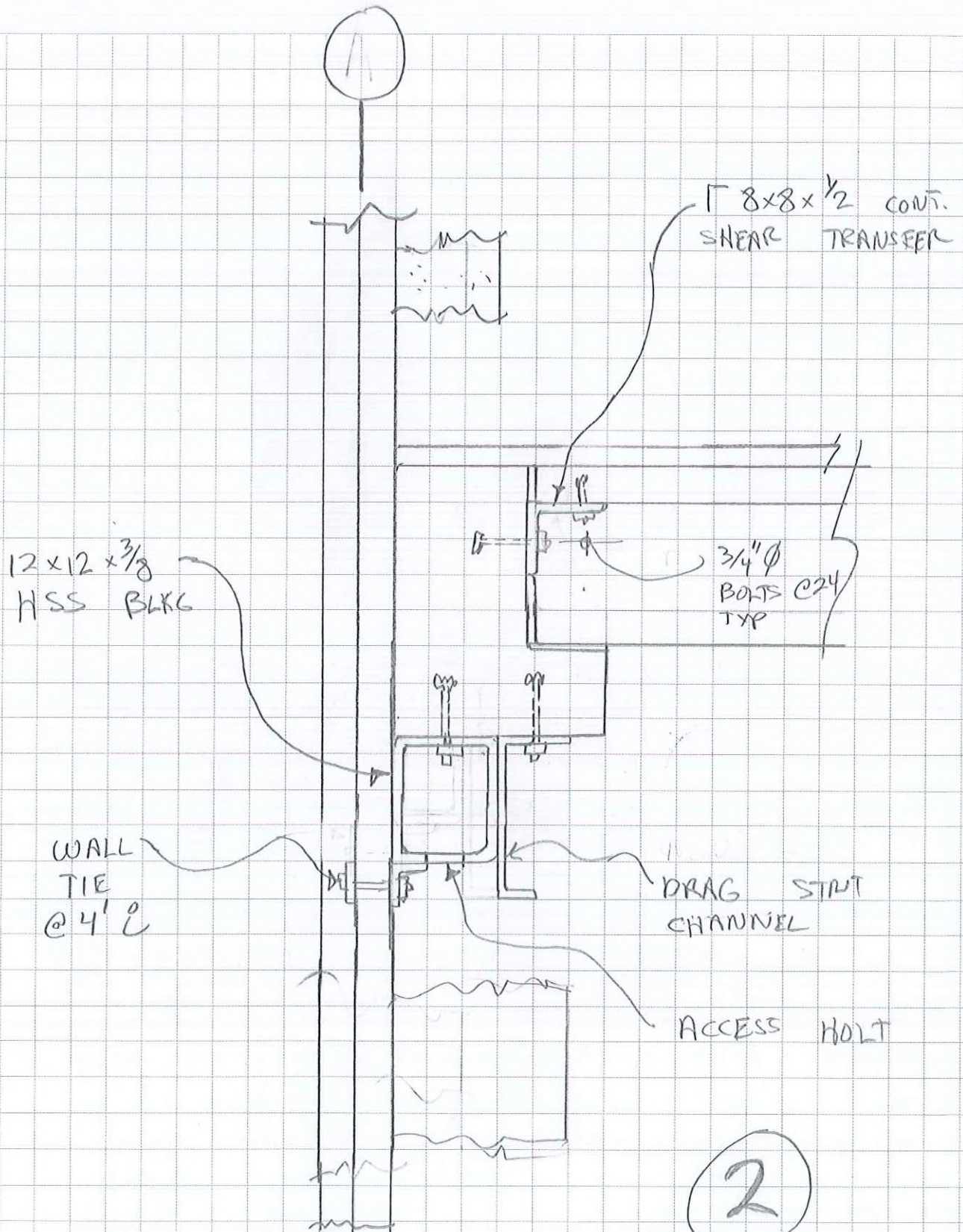
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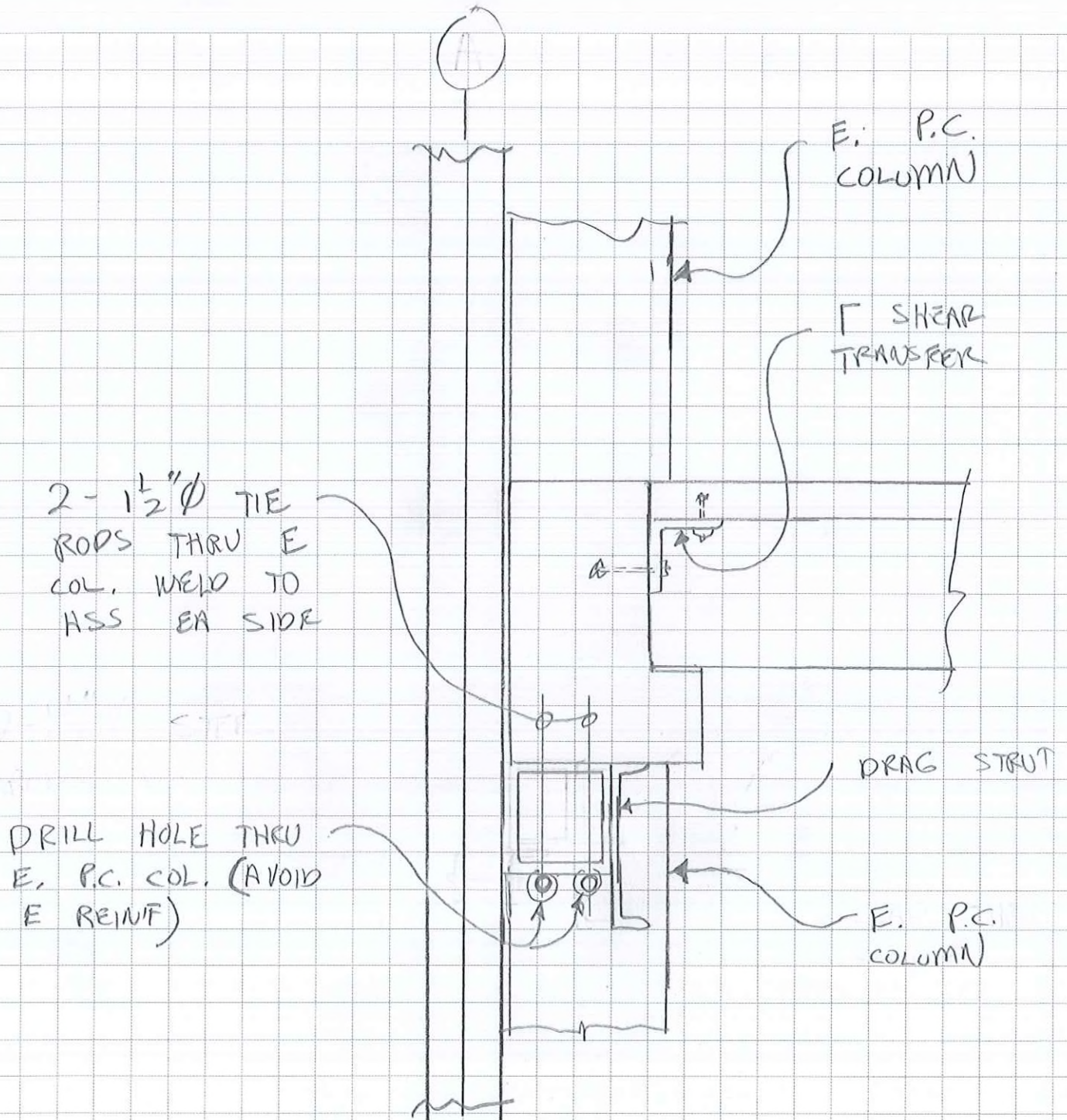
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SUBJECT _____ 3 SHEET 04 OF _____

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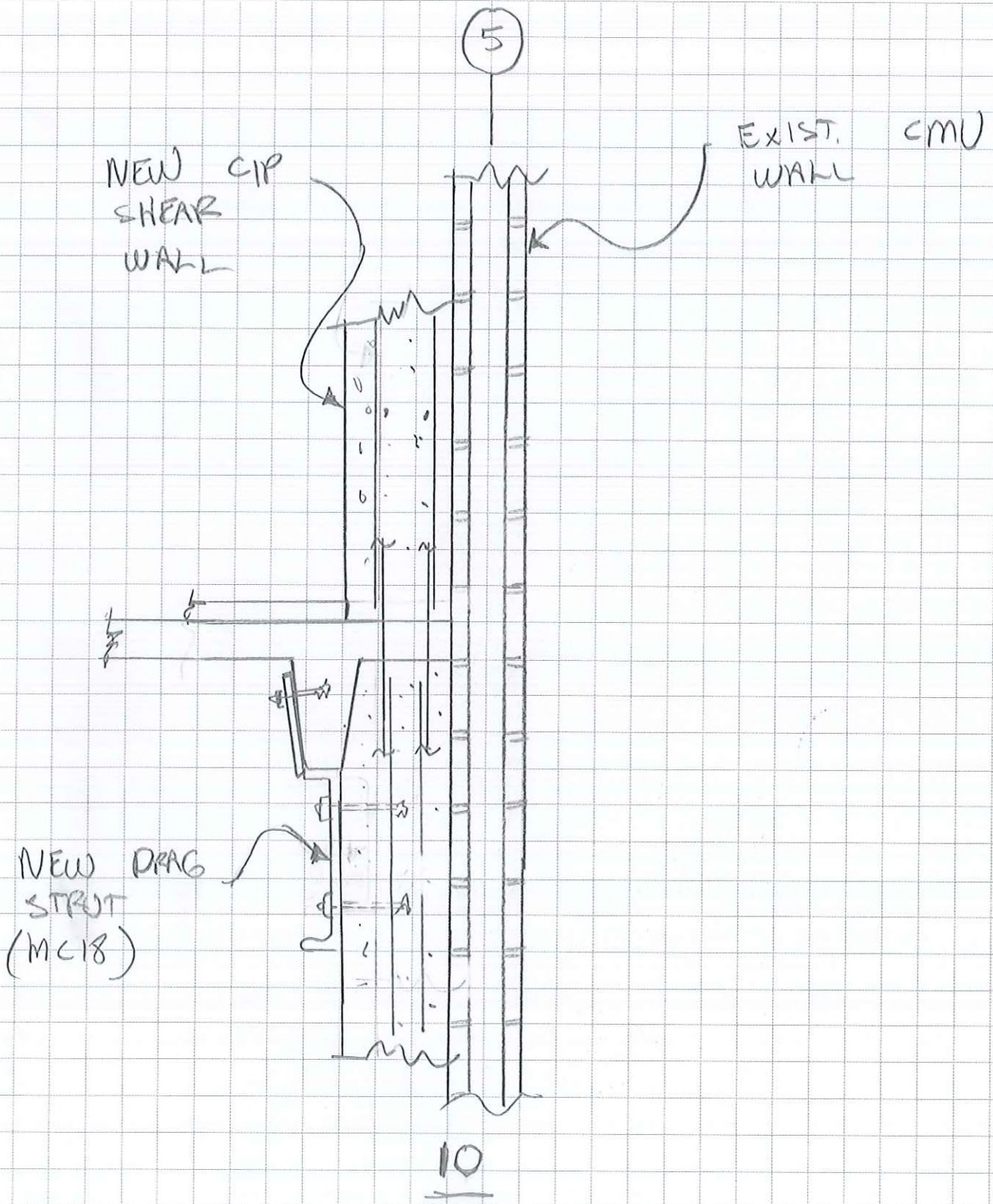
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SUBJECT GRID 5 SHEET 05 OF _____

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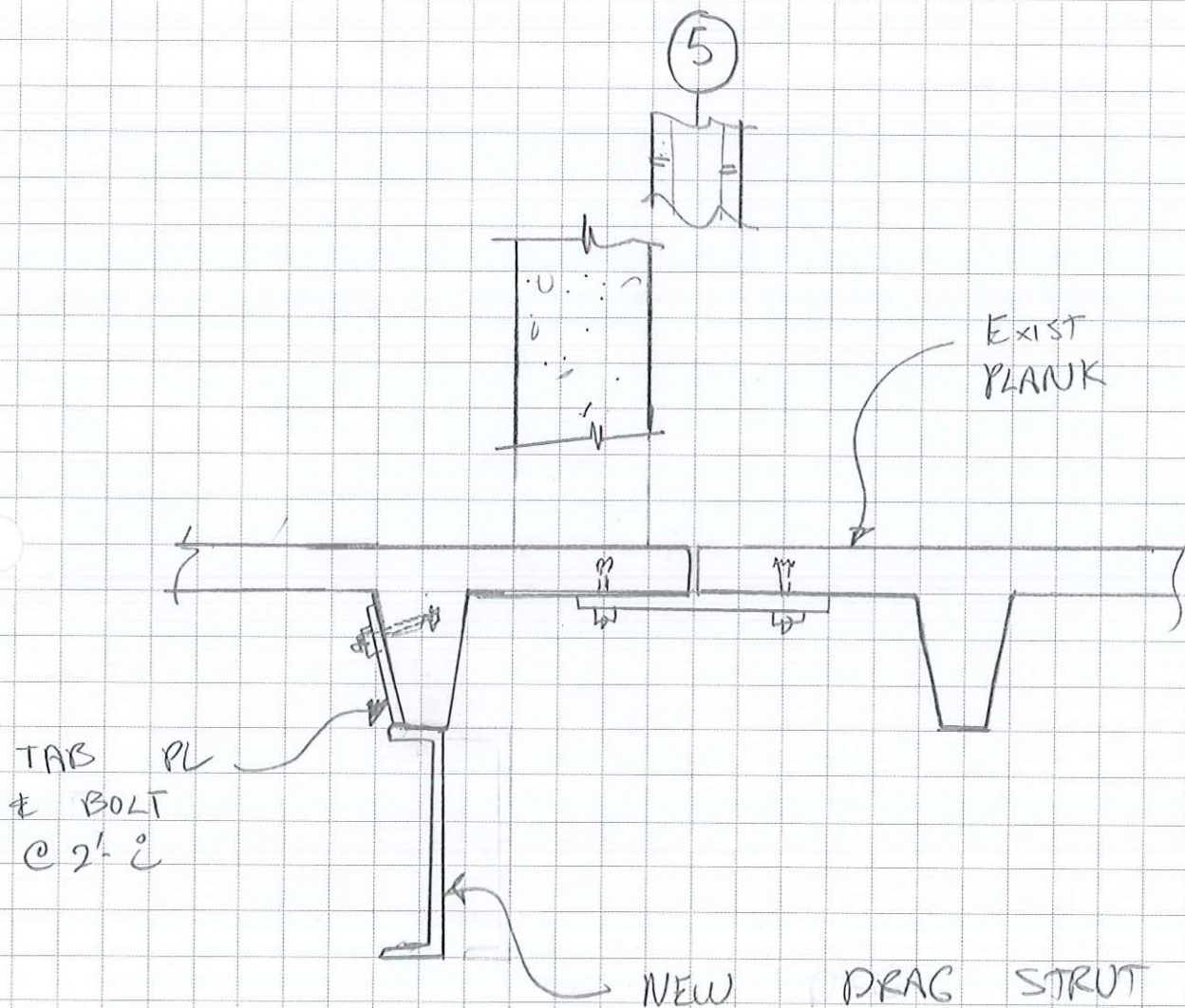
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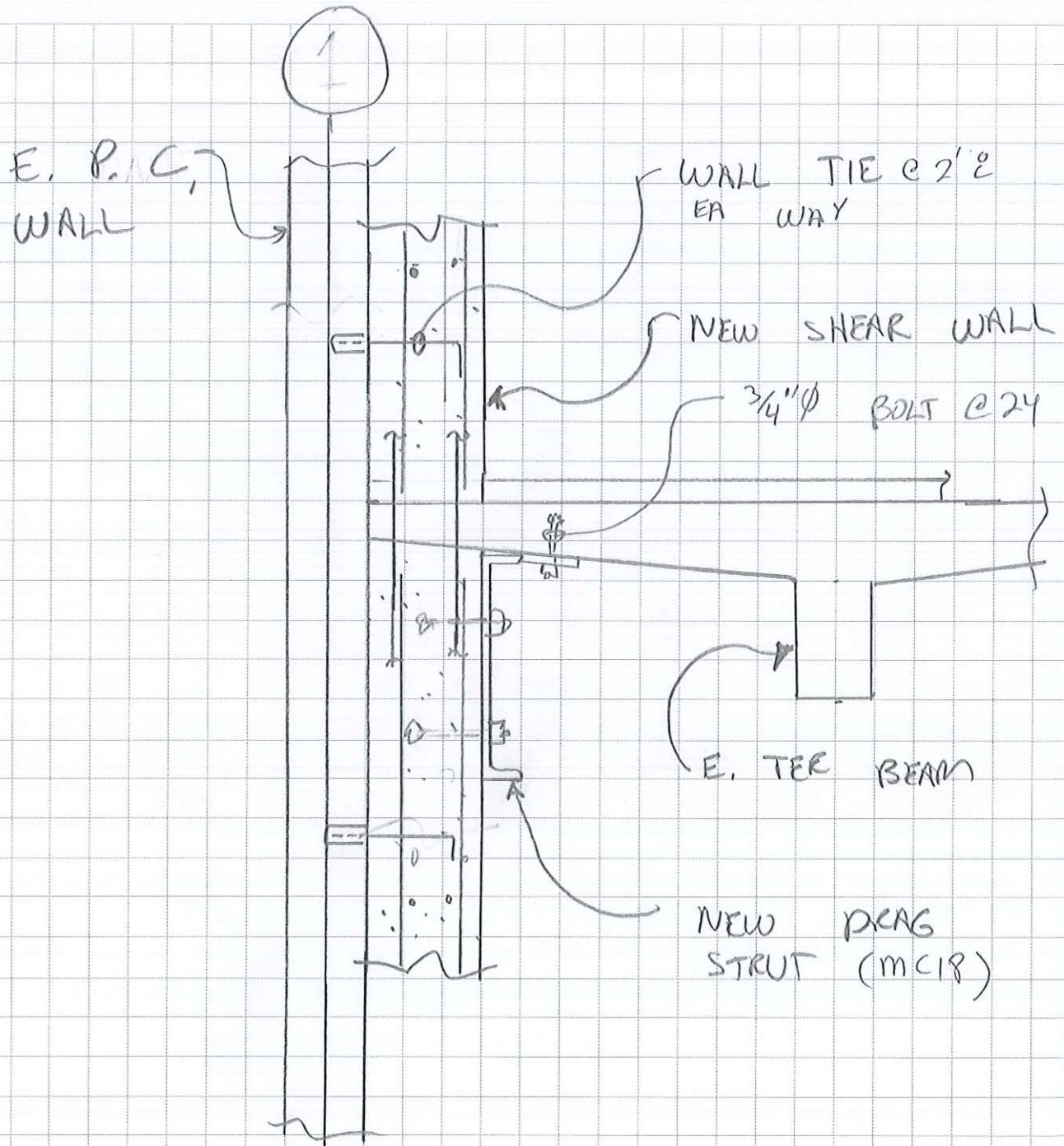
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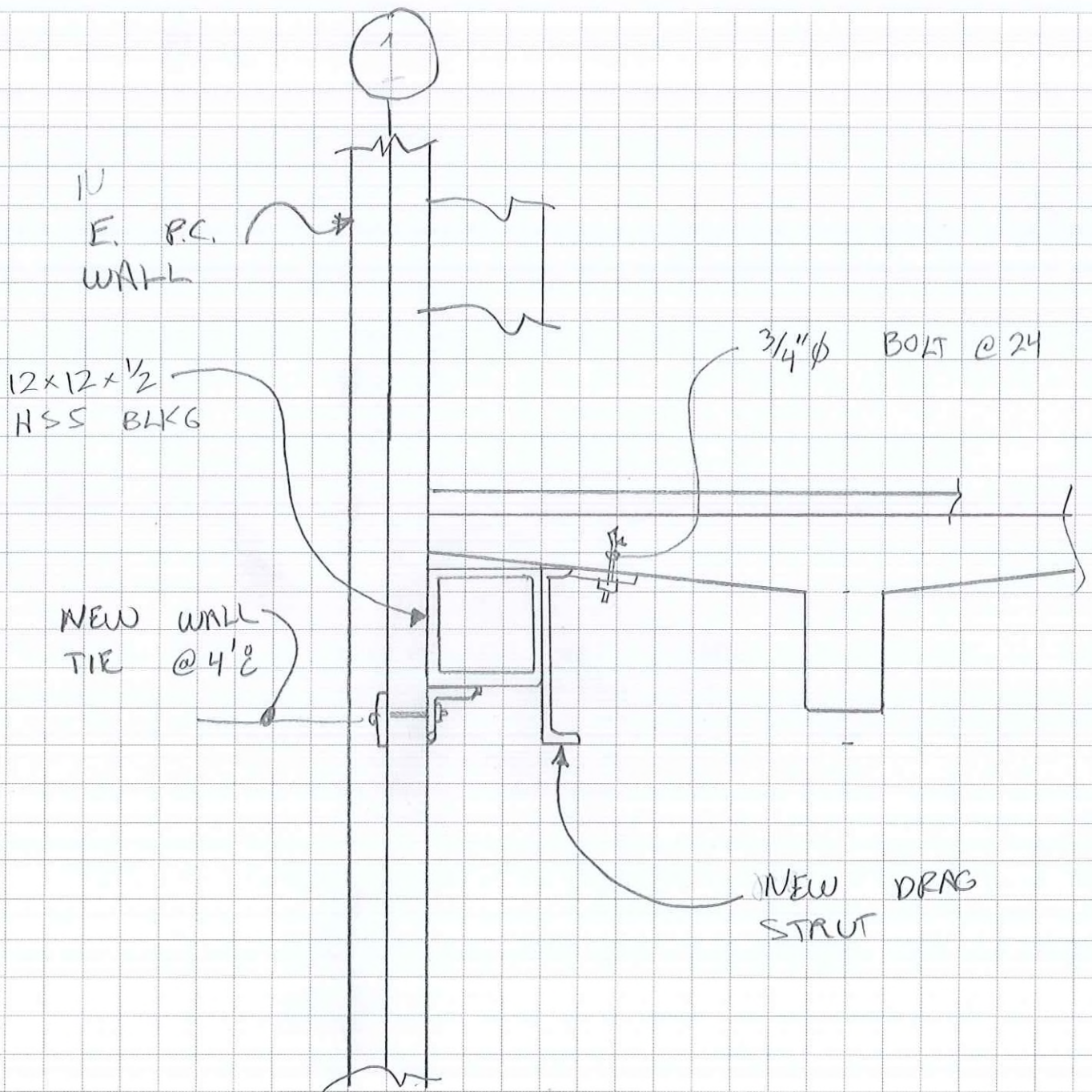
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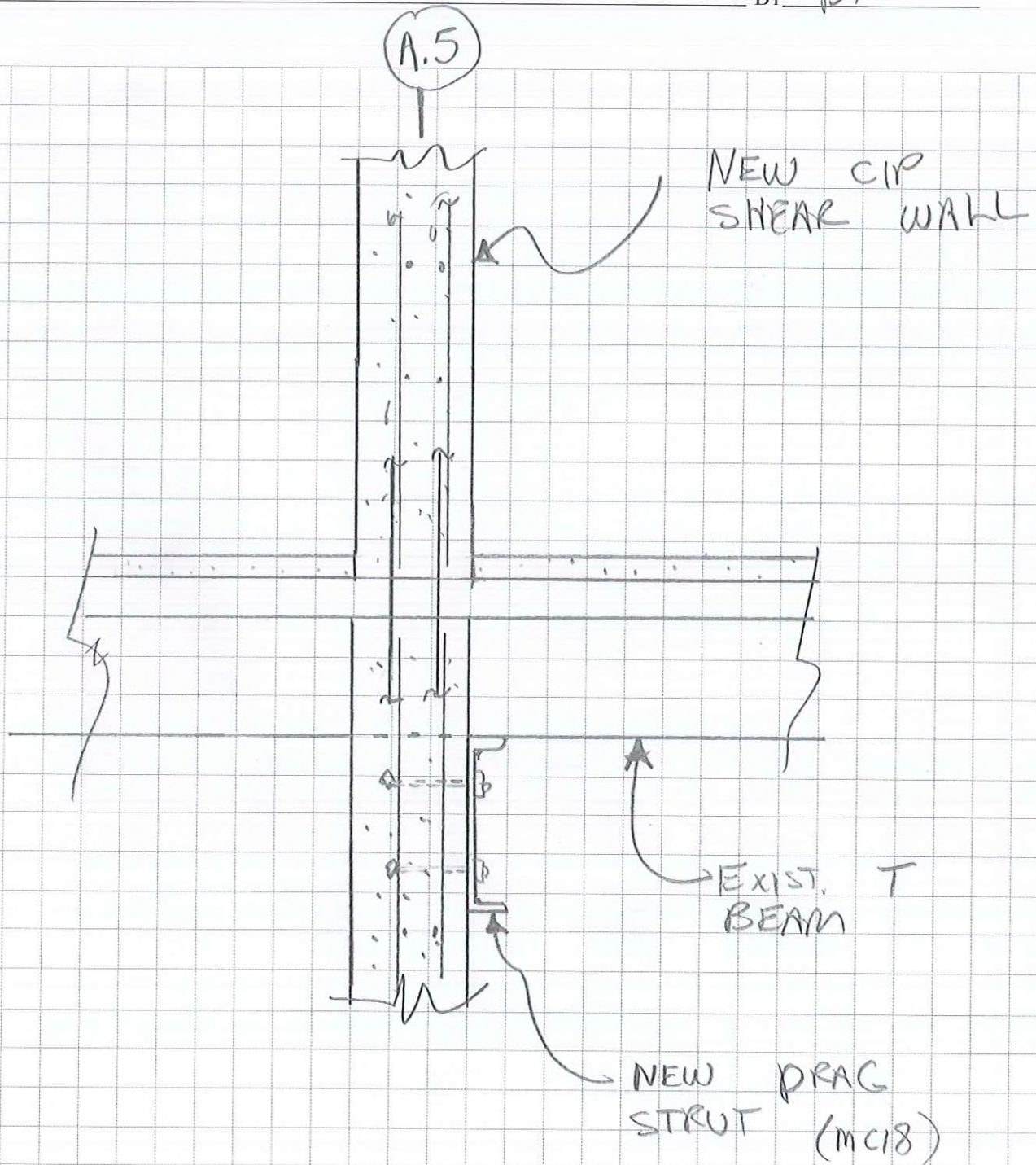
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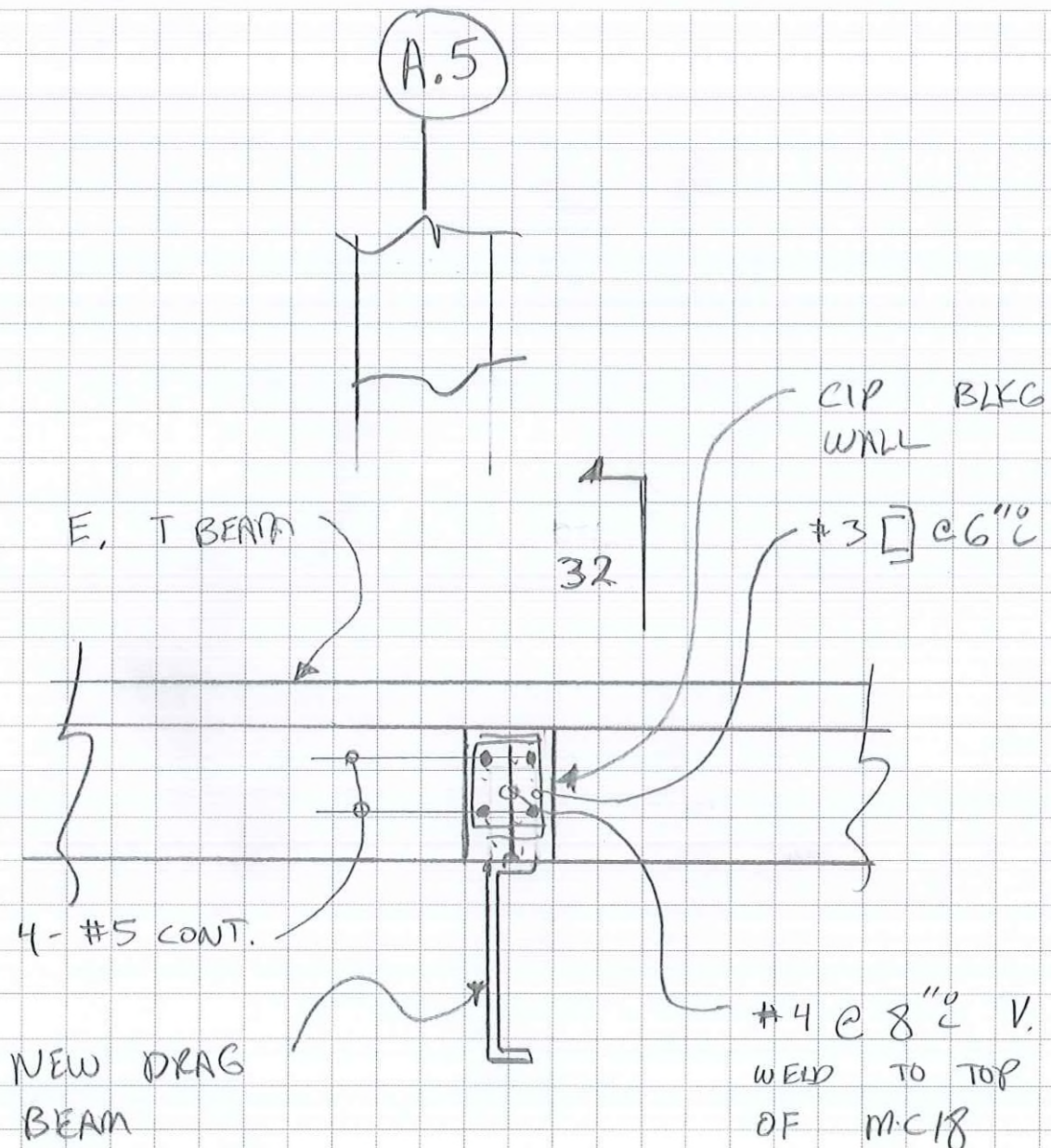


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SUBJECT

SECTION 32

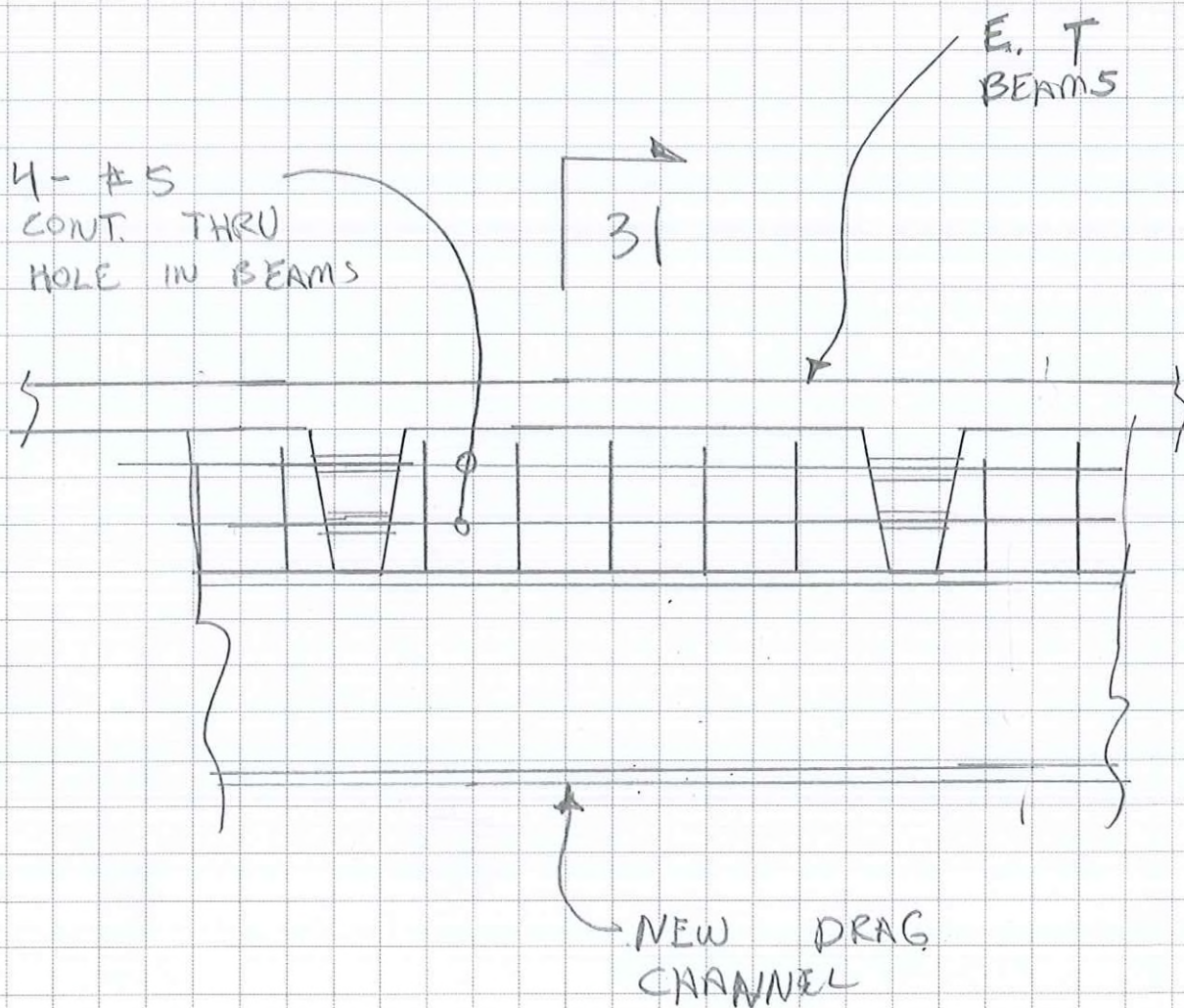
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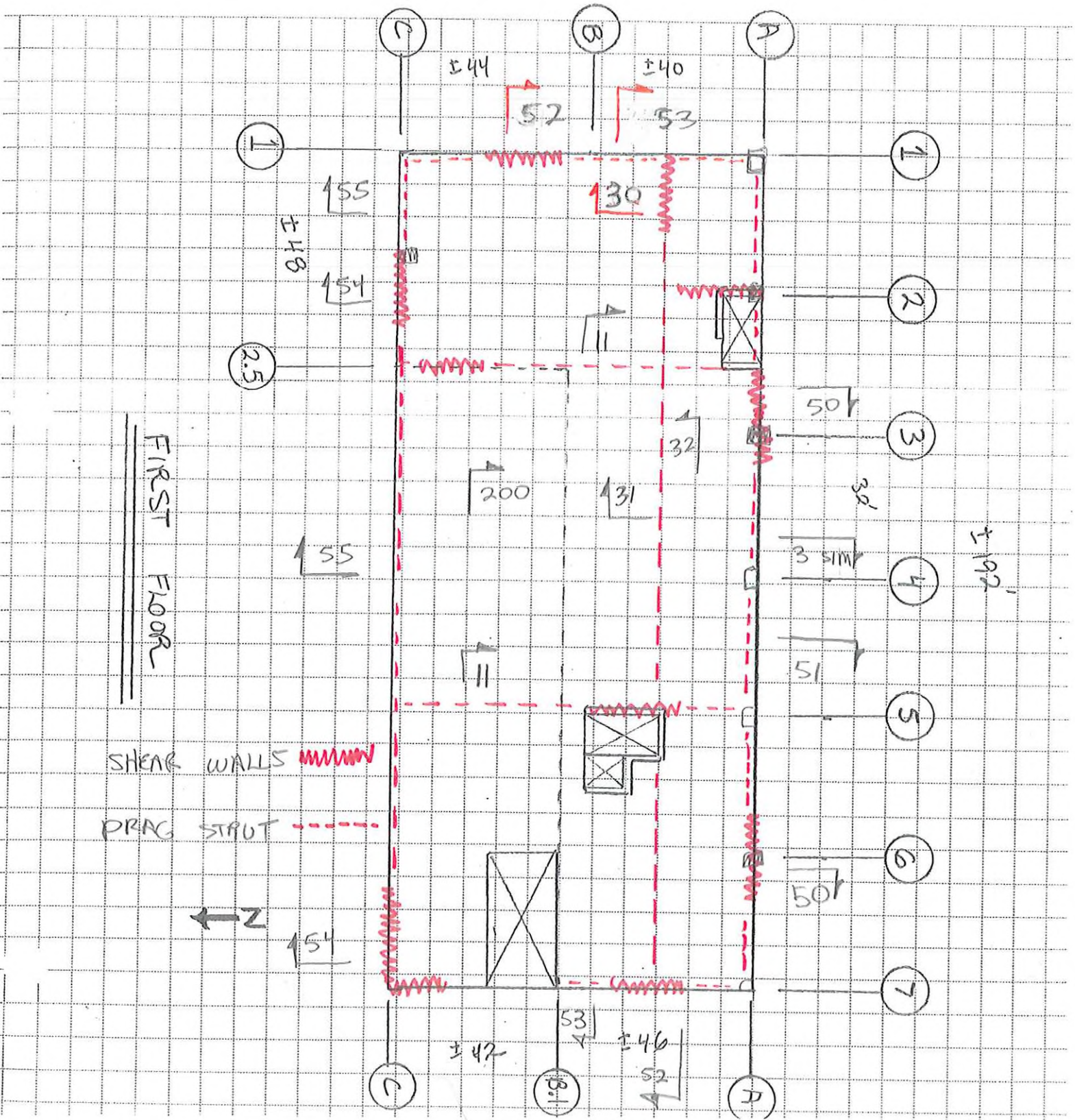


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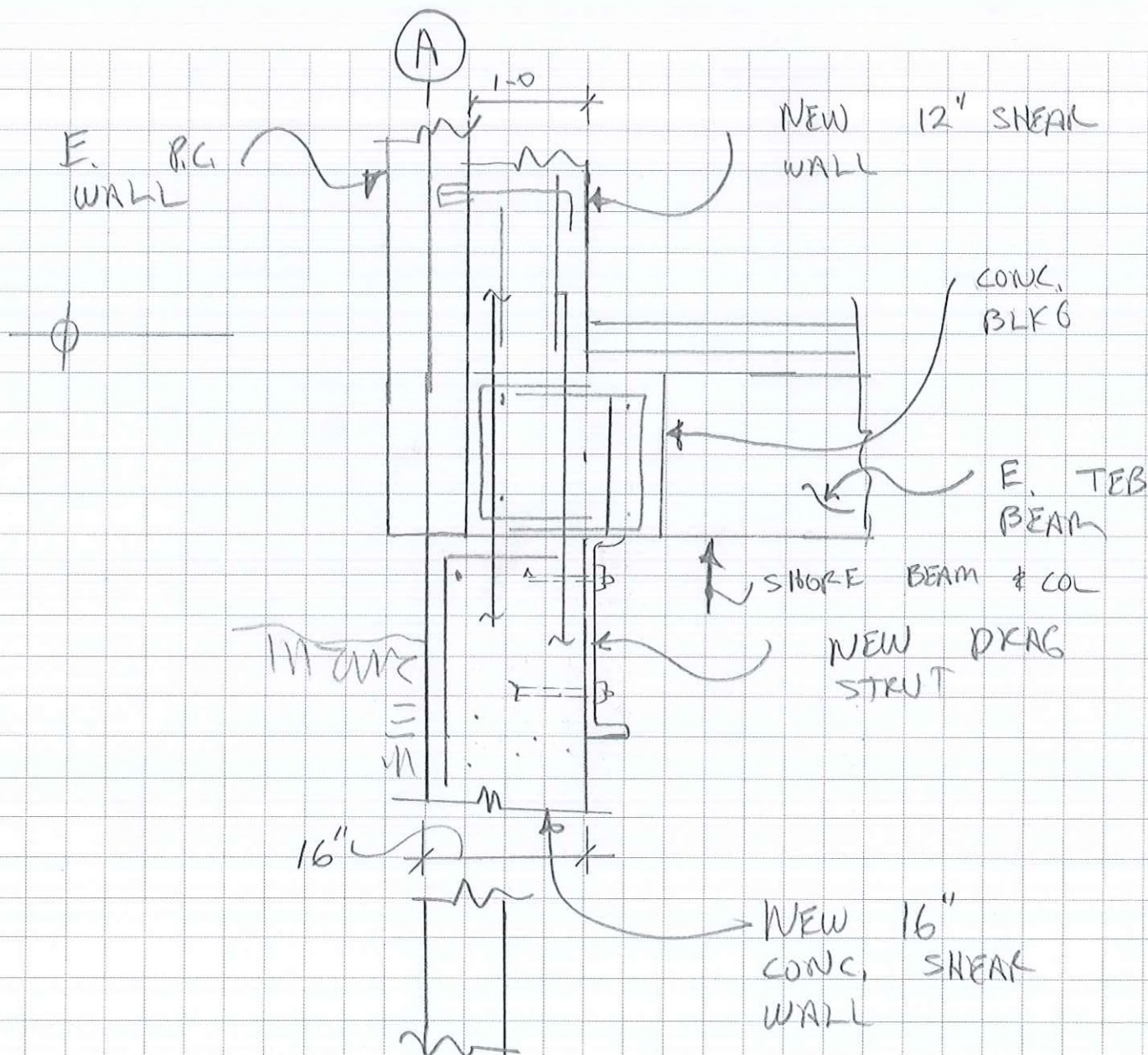
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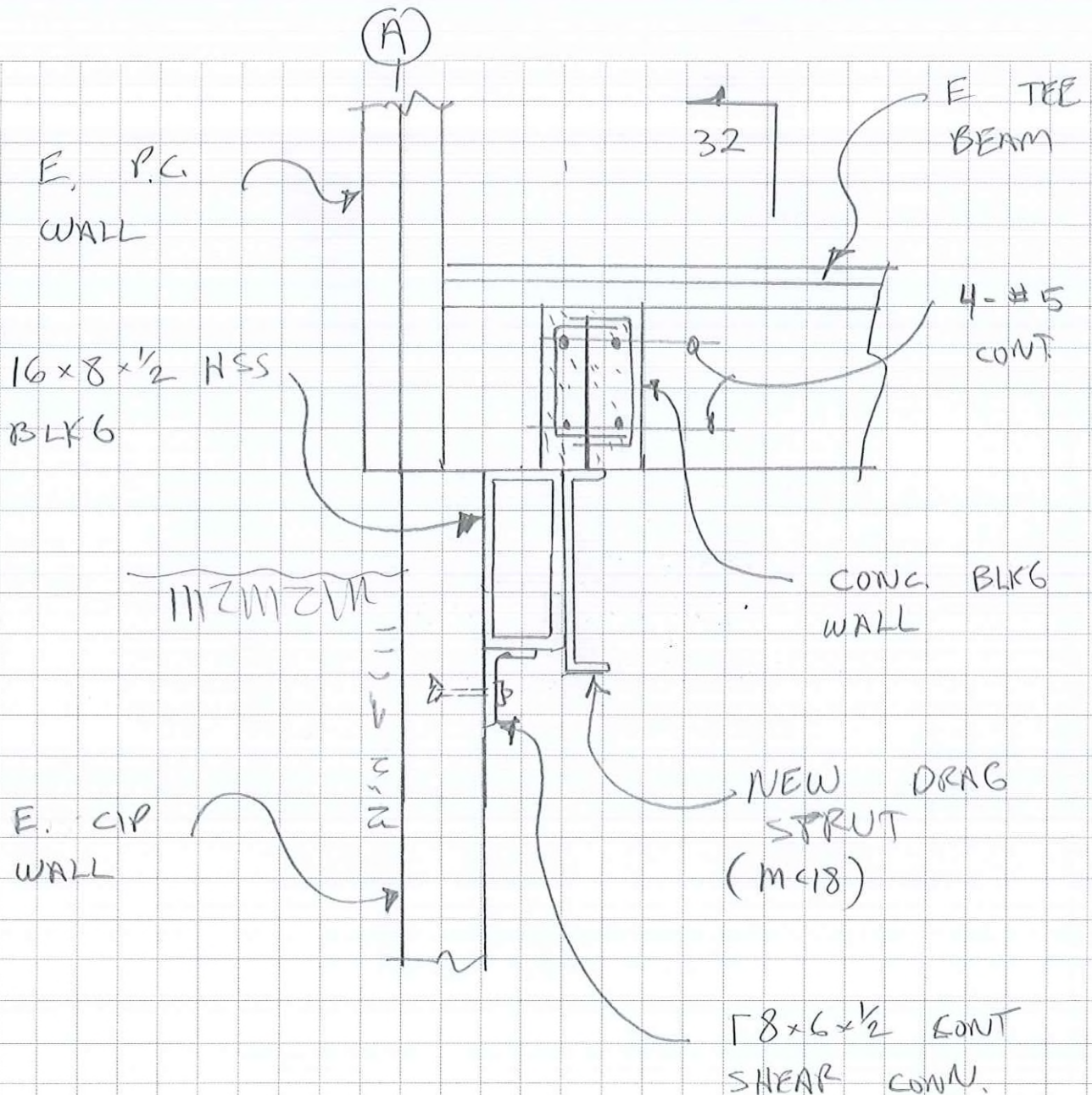
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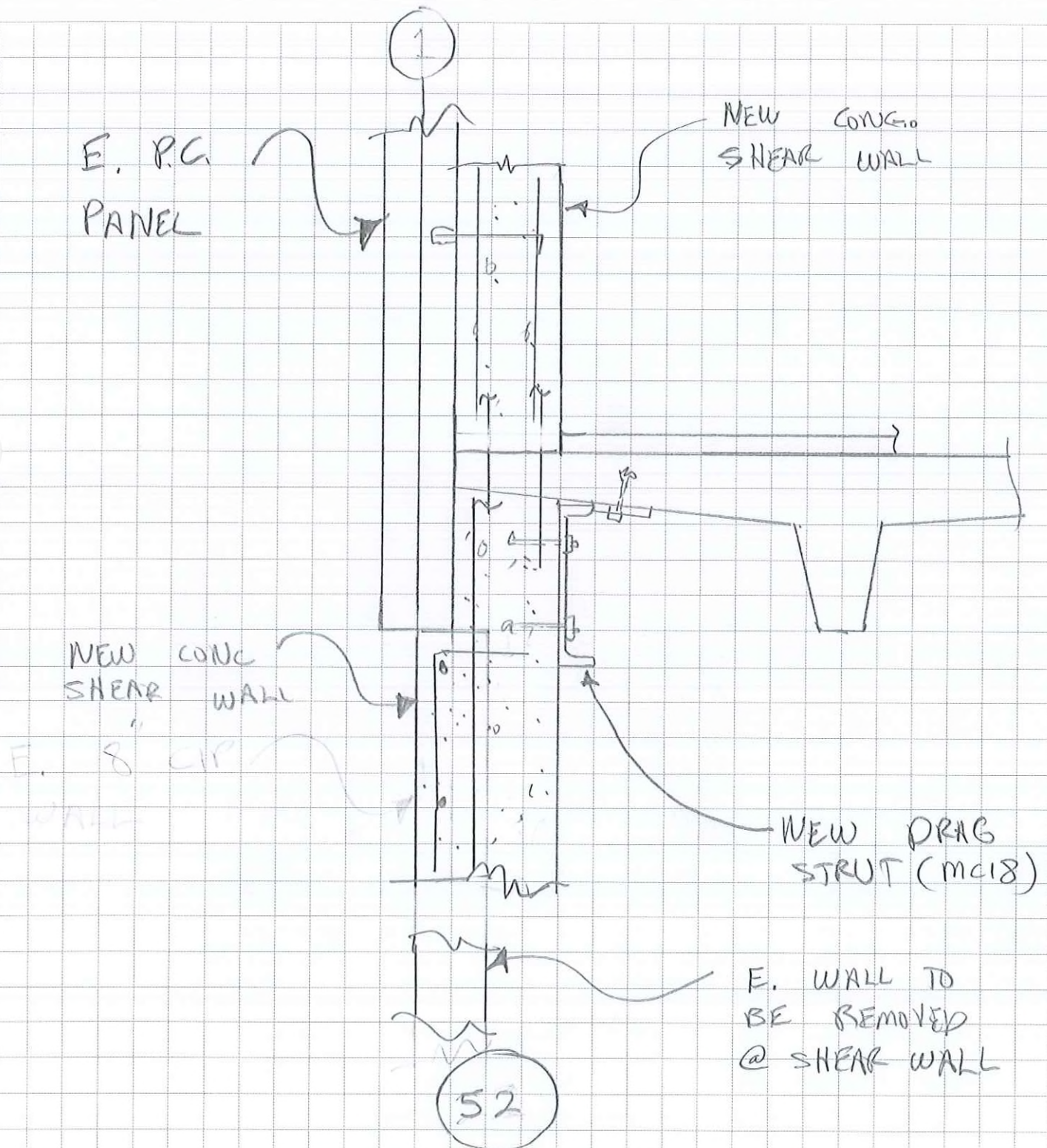
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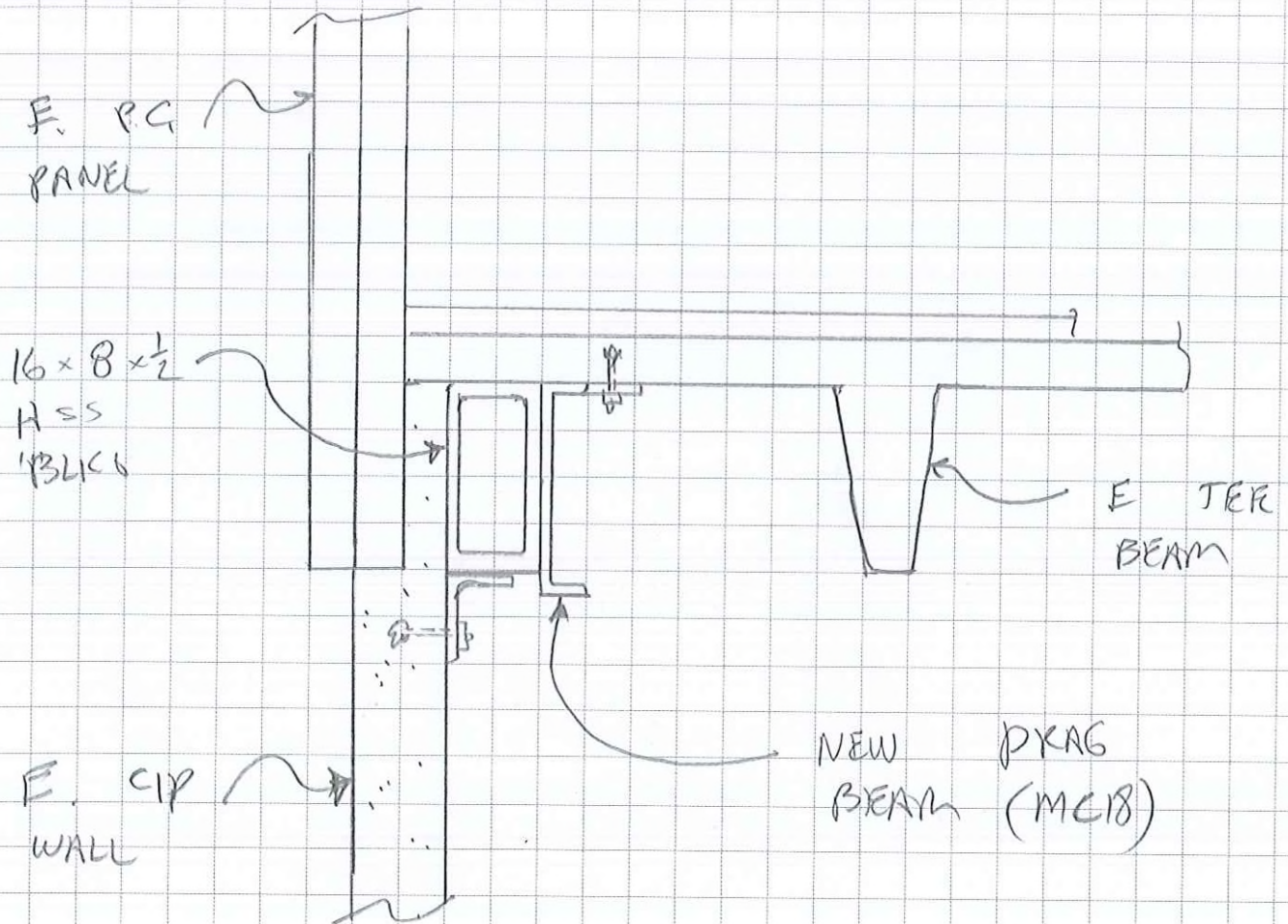
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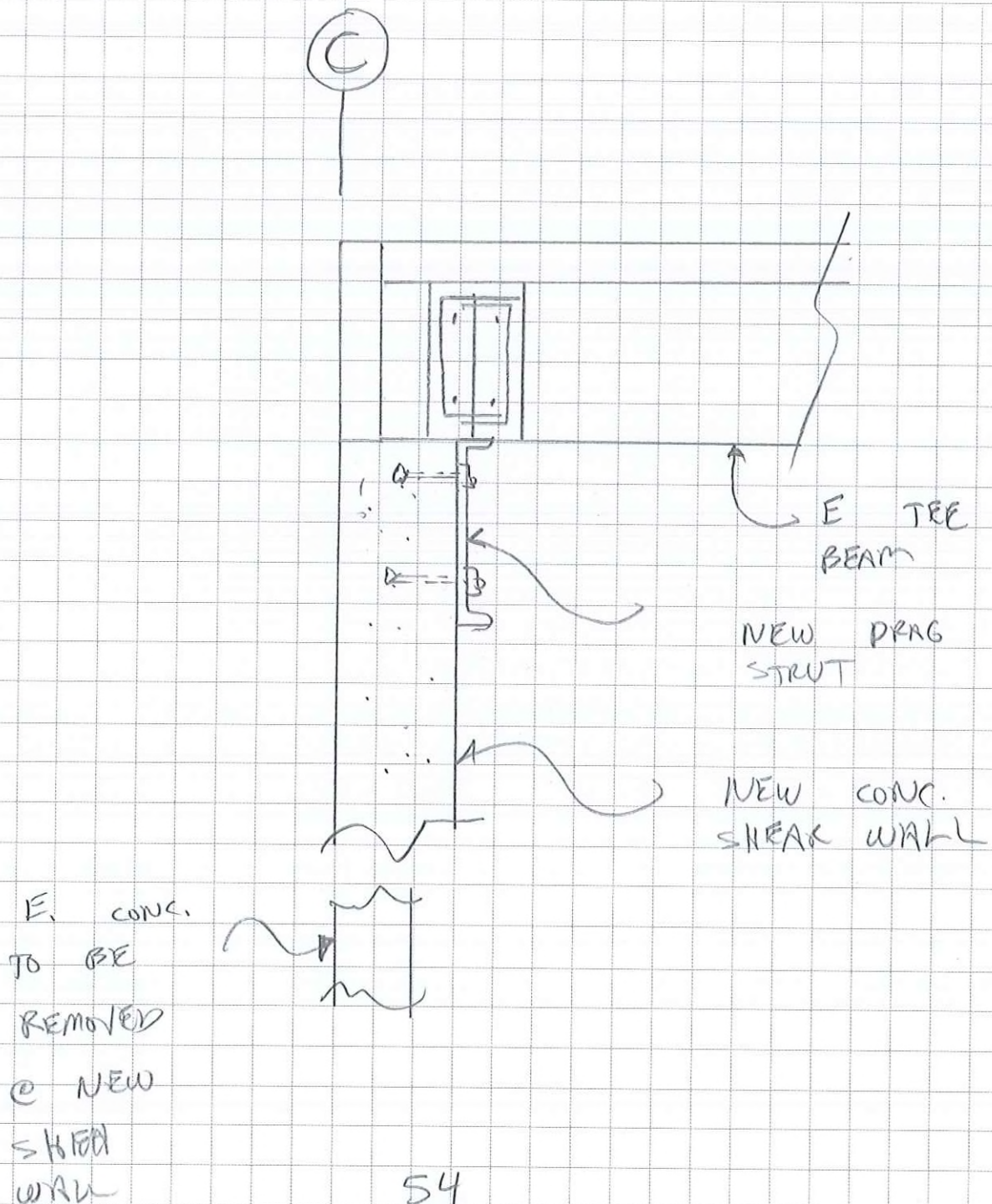
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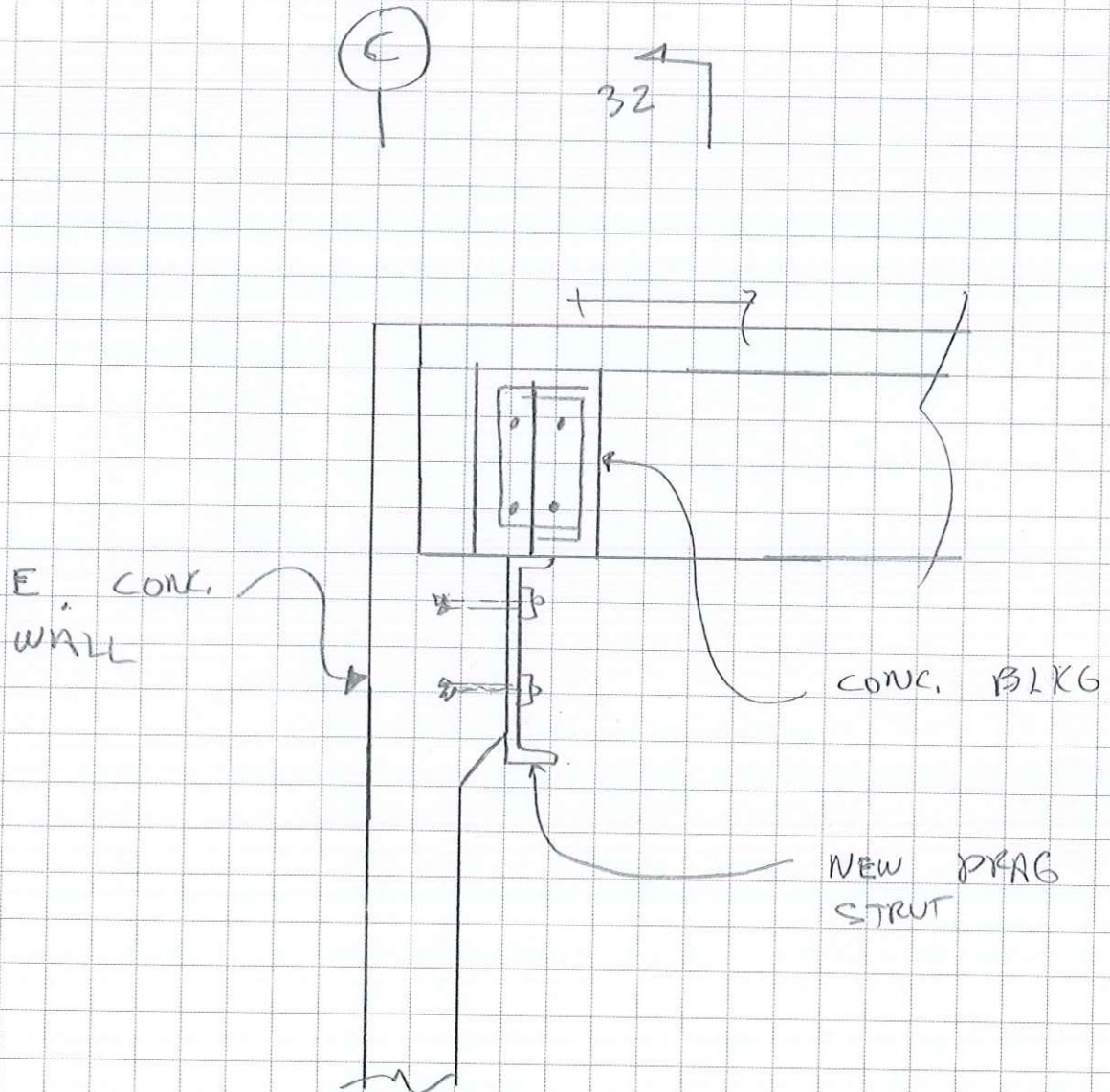
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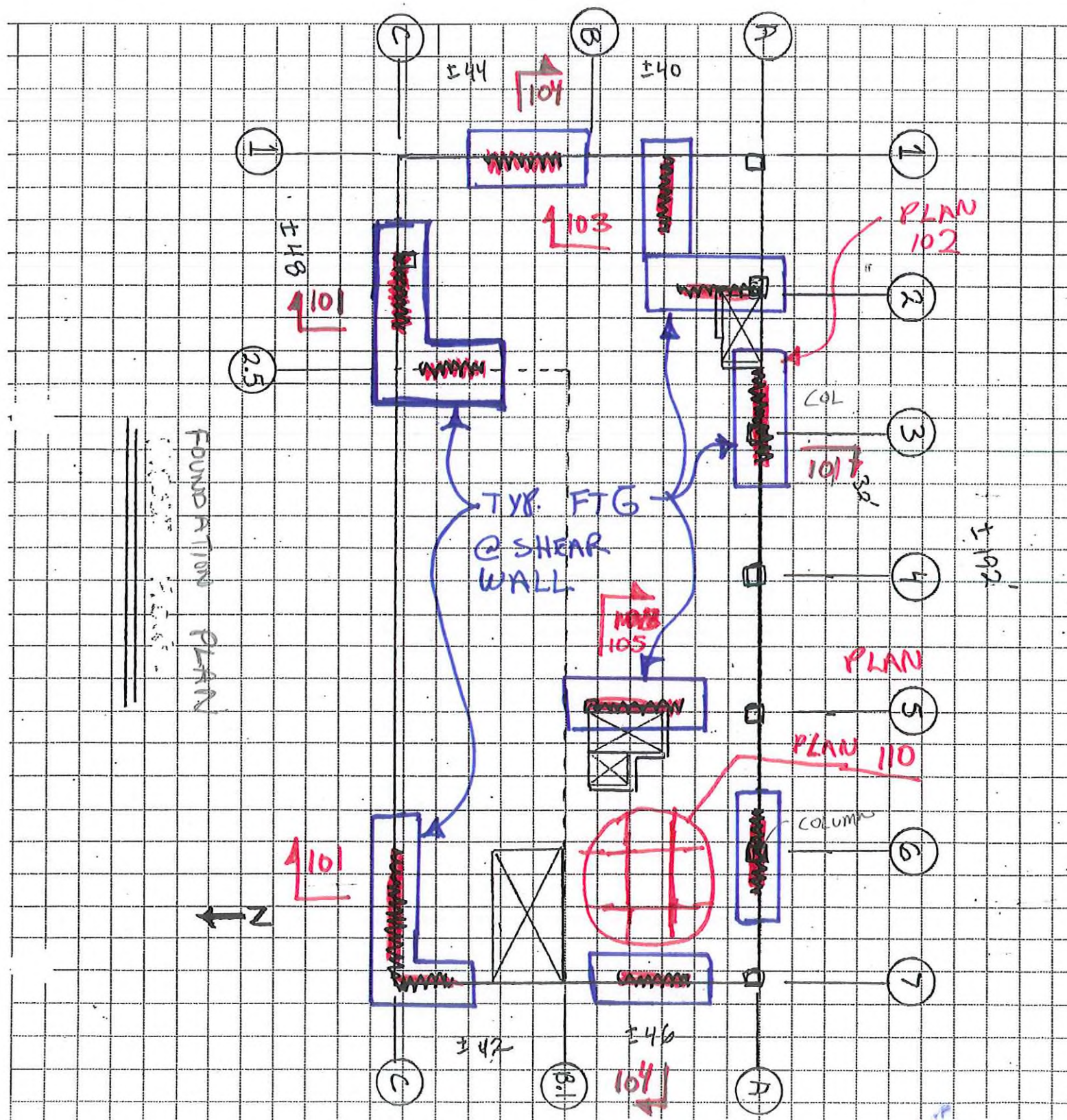
FOUNDATION - SHEARWALL LOCATIONS

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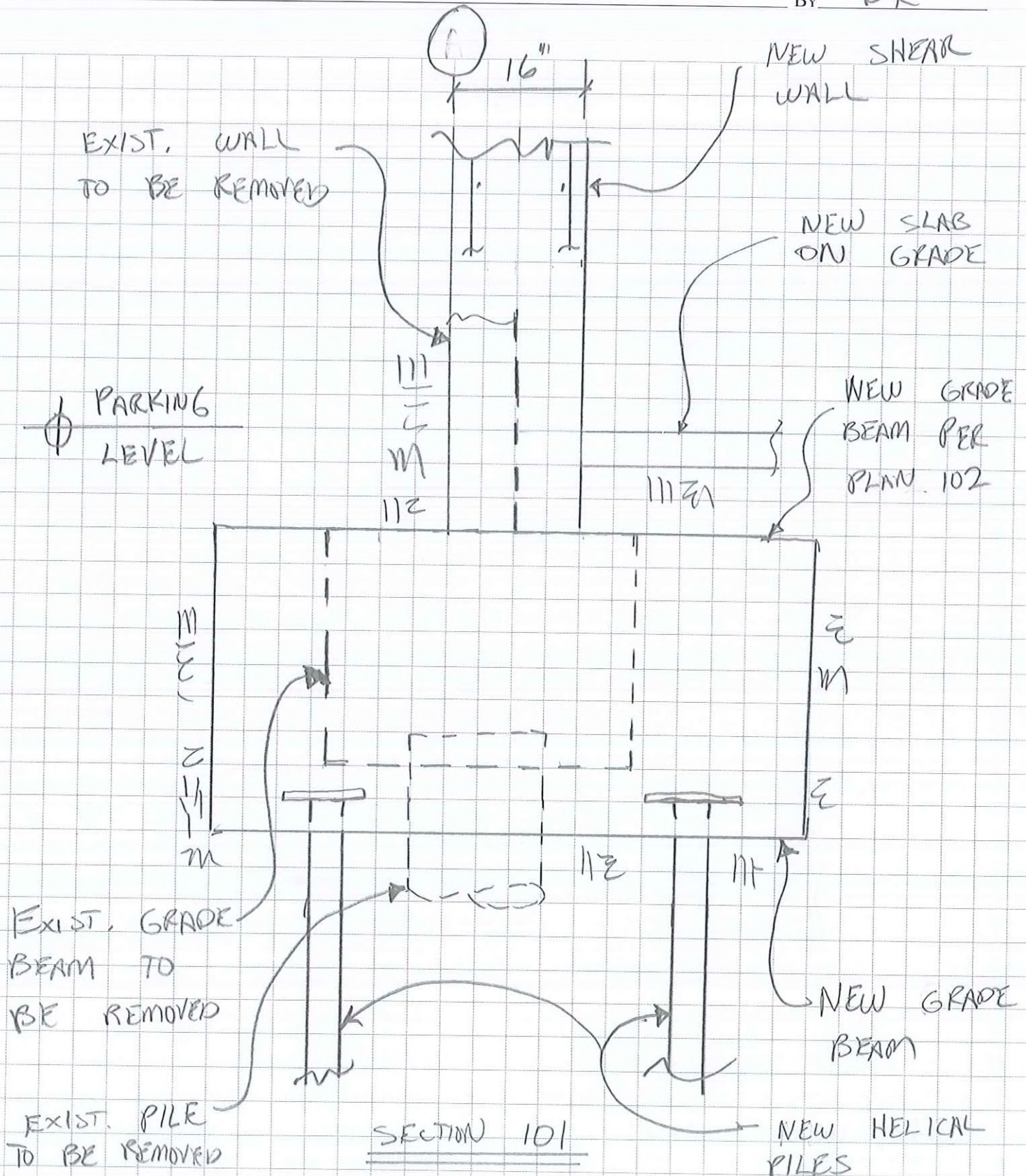


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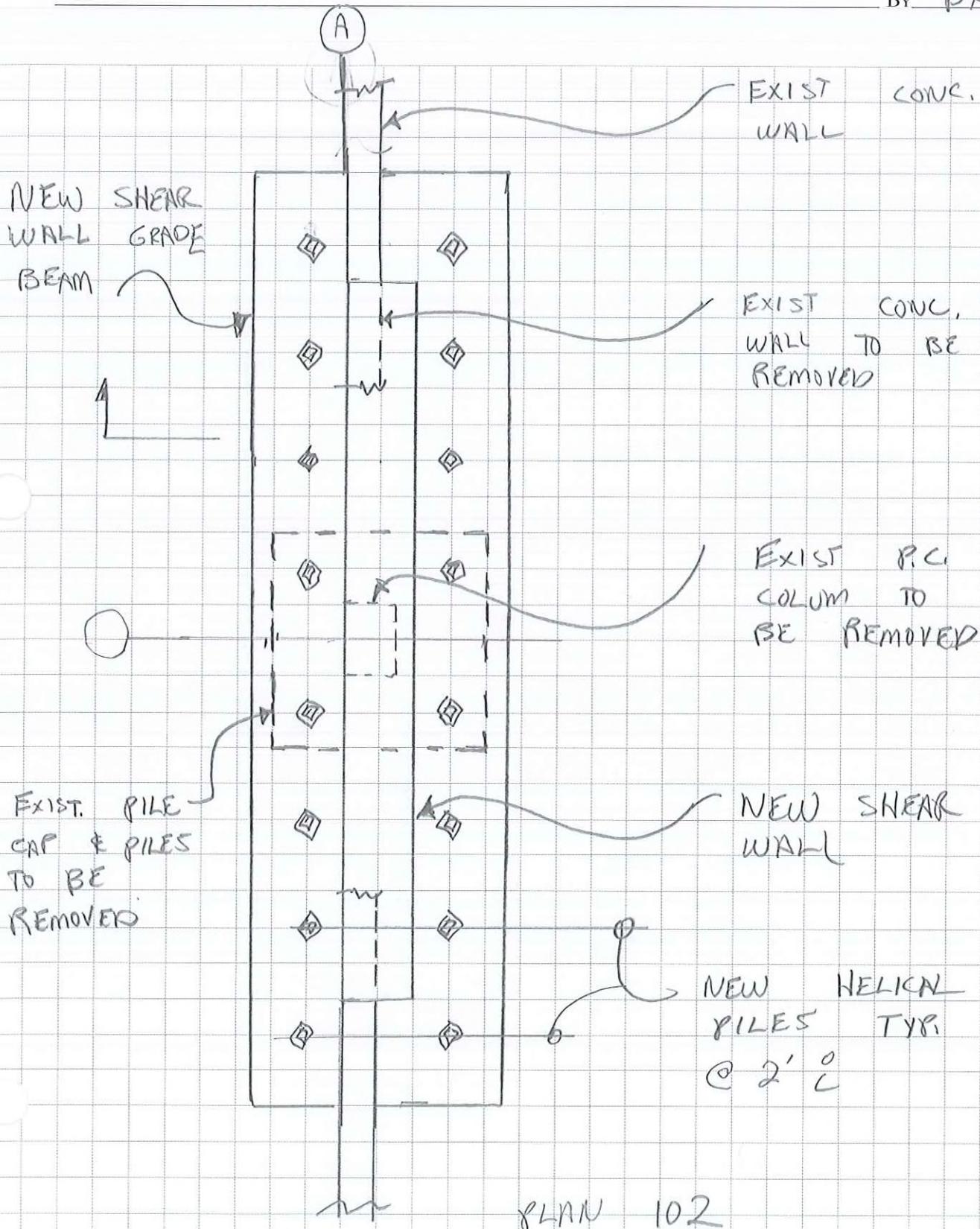
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PROJECT # _____ PROJECT 444 RAVENNA DATE 6-9-14
SUBJECT SECTION C PARKING LEVEL - PRELIM SHEET B2 OF _____
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 SUBJECT PRELIM SHEAR WALL FOUNDATION PLAN SHEET B3 OF _____
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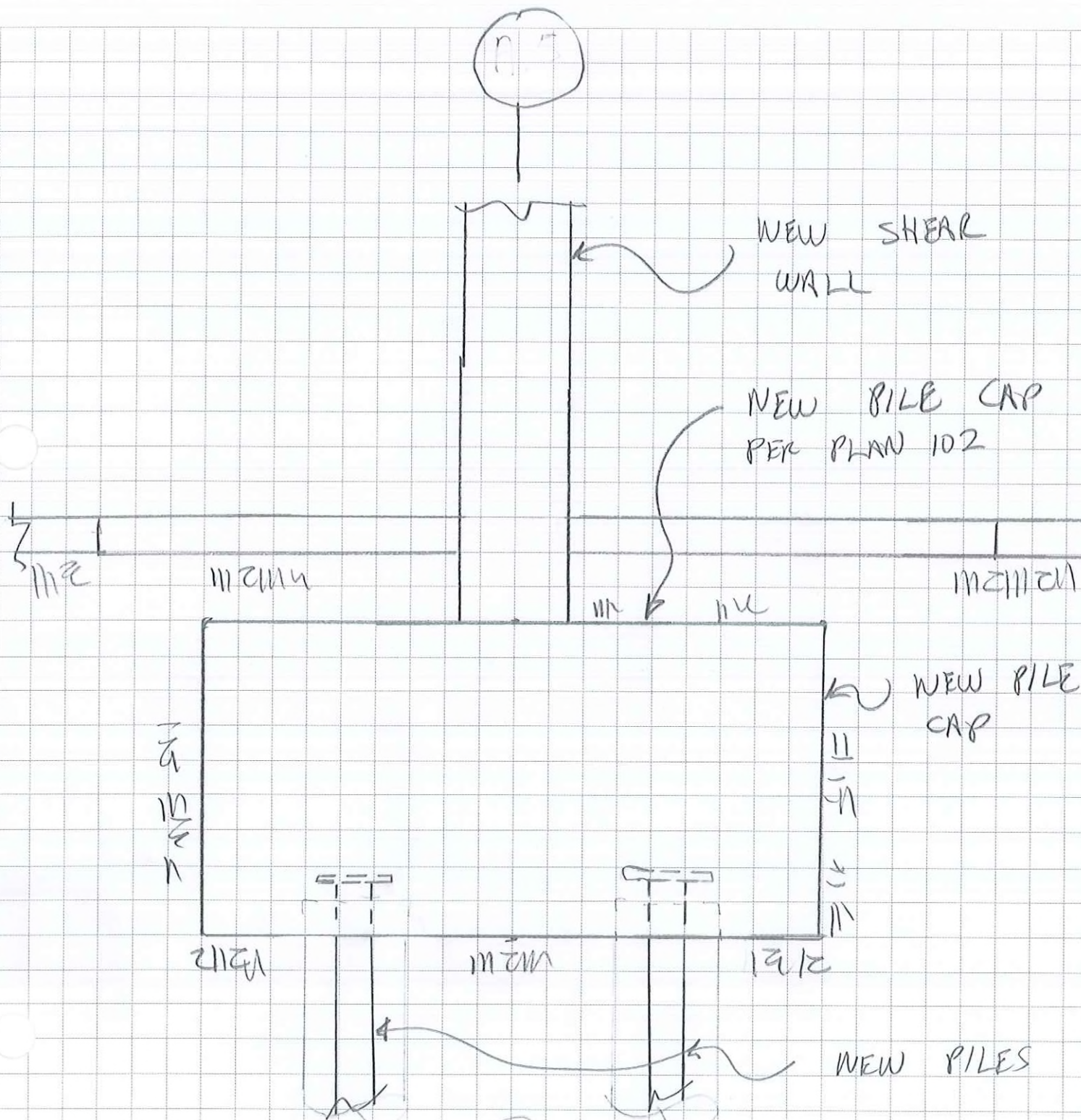


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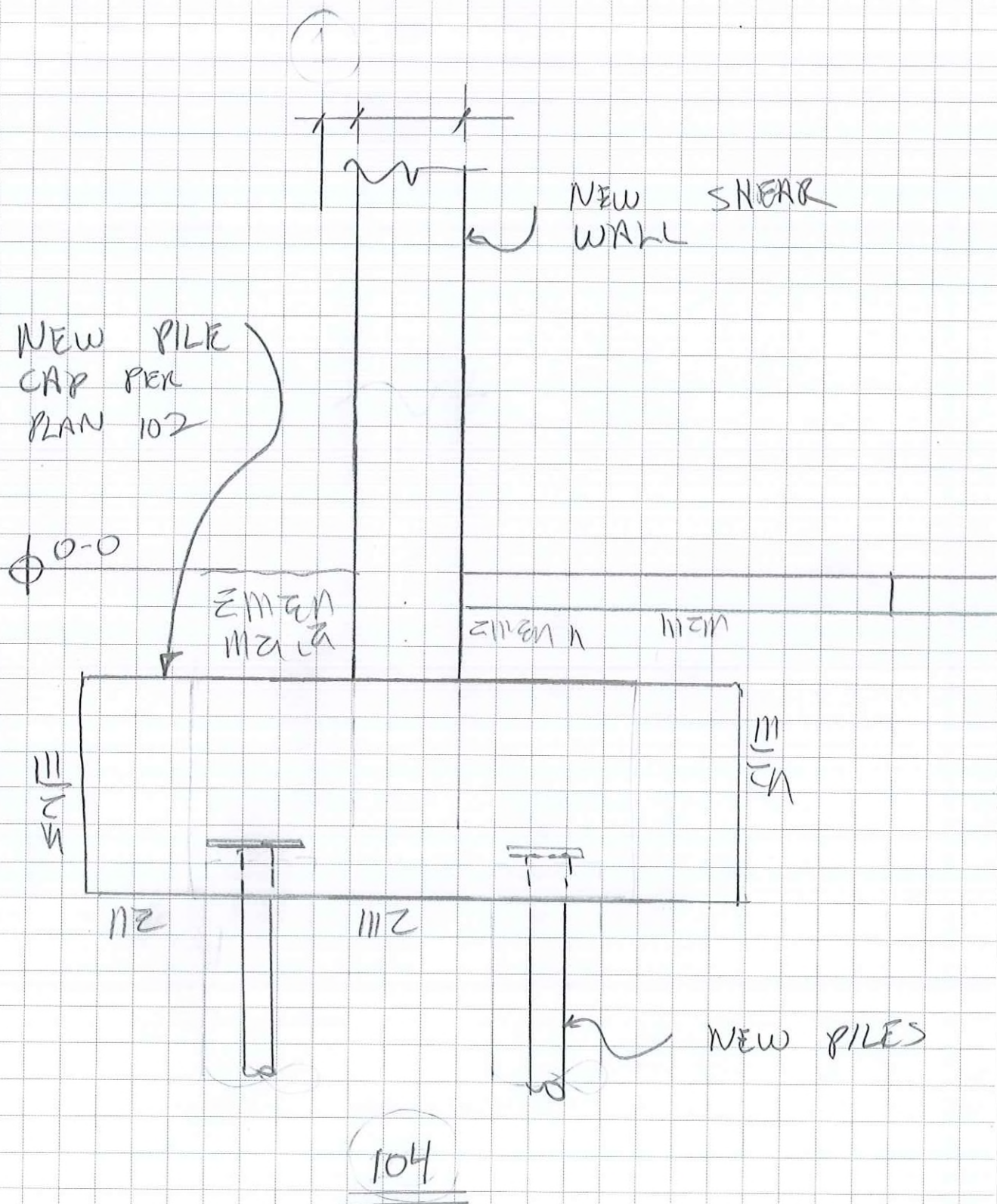
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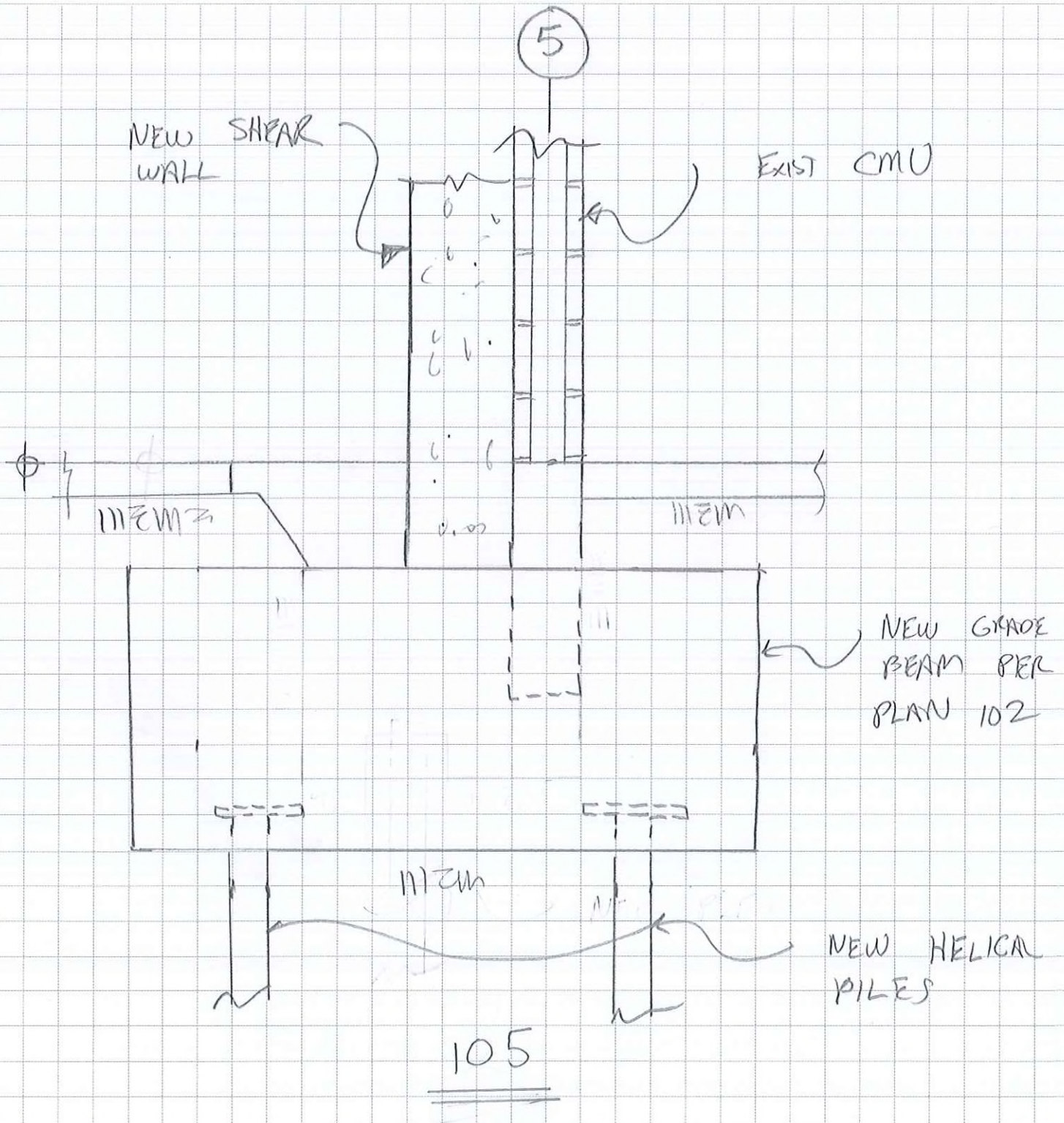
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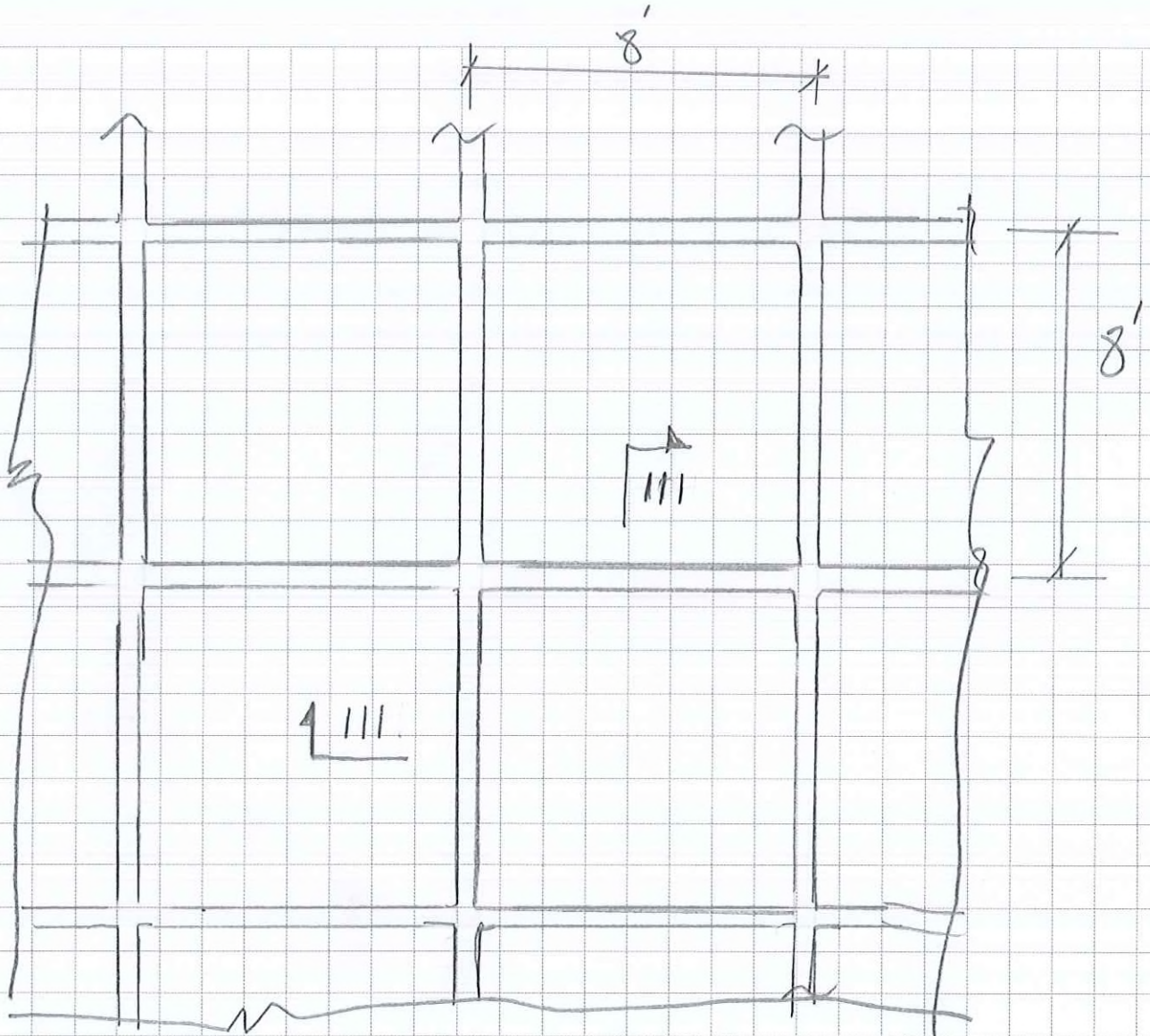
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PLAN - GRADE BEAM

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GRID

By DK



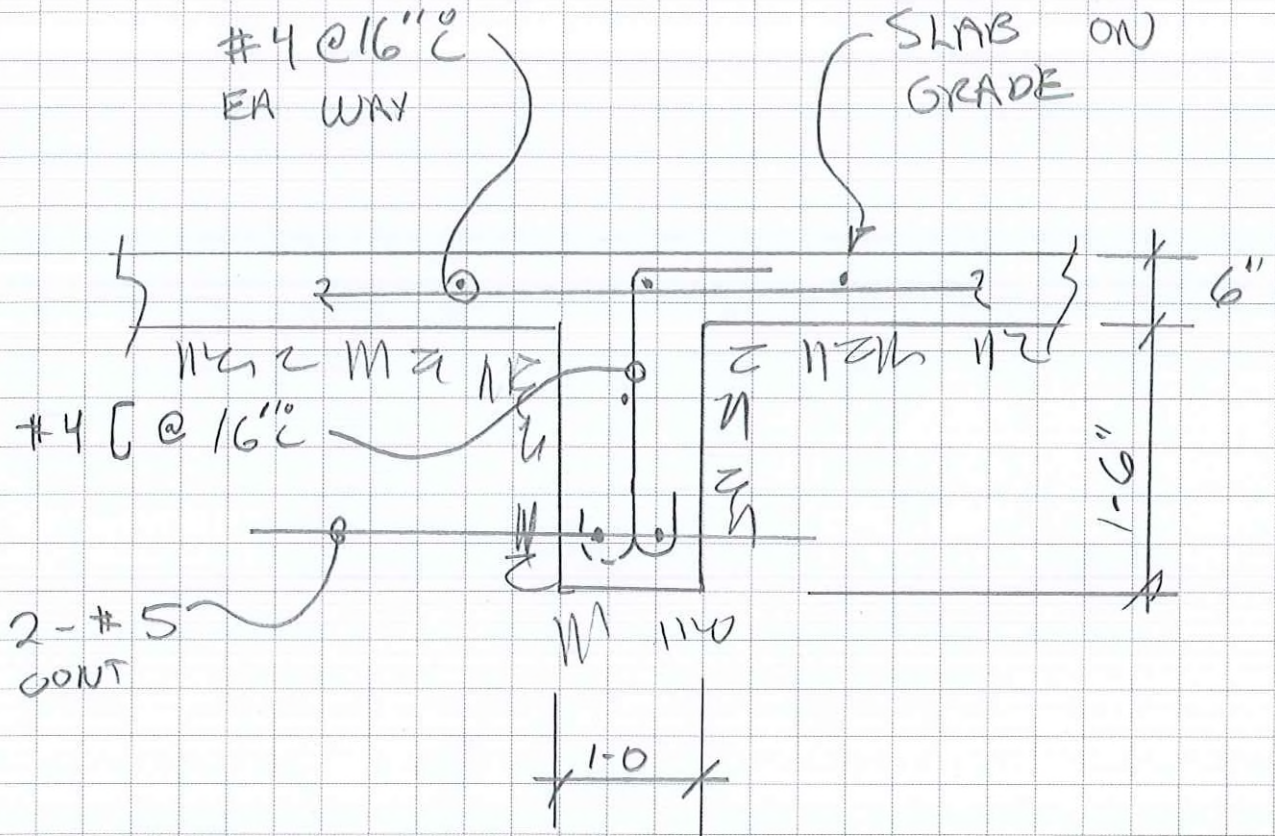
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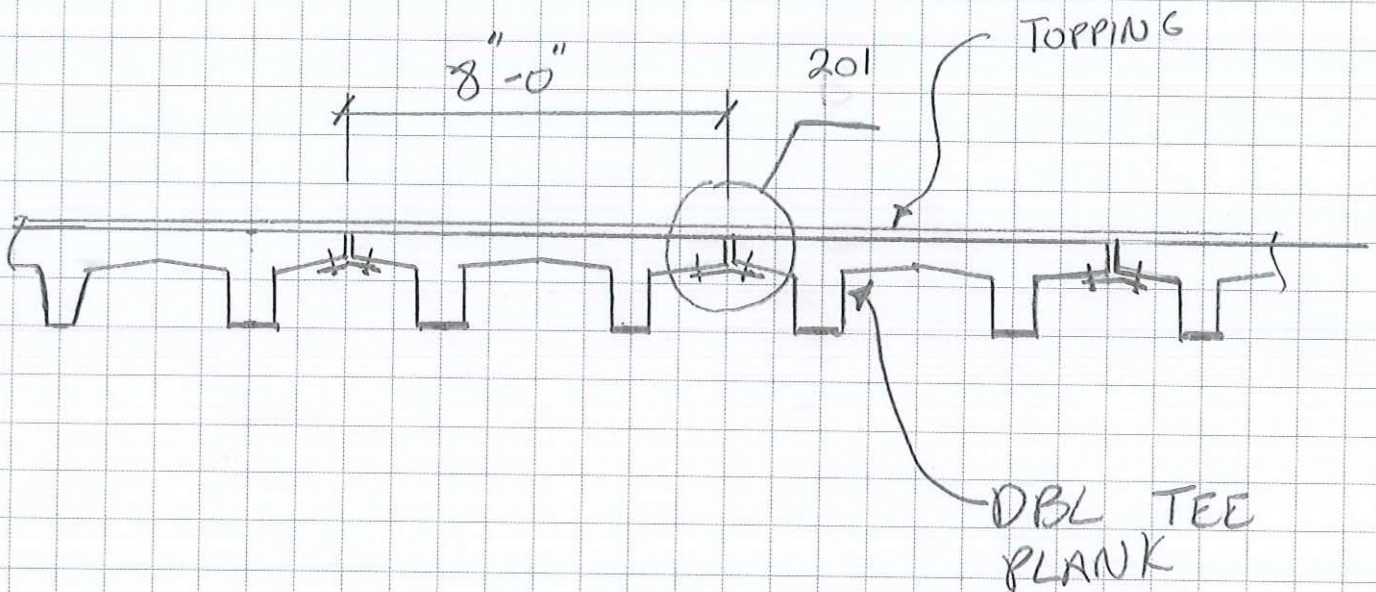
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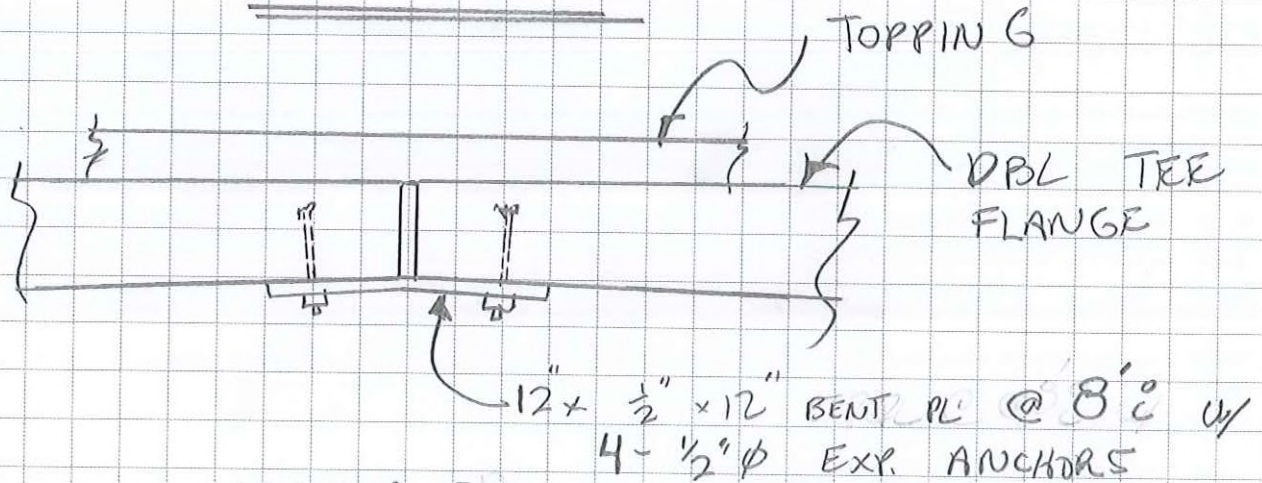


SECTION III

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SECTION 200



SECTION 201