These notes shall govern unless otherwise noted in the drawings. Refer to written specifications for further requirements and amplification of these notes. Codes International Building Code (IBC), 2018 edition, as adopted and amended by the project jurisdiction Project Jurisdiction: City of Puyallup, State of Washington. <u>Design Loads</u> Reference code: ASCE/SEI 7-16, Minimum Design Loads for Buildings and Other Structures. <u>Dead Loads</u> Refer to Load Maps & Load Diagrams (S-501 and S-502) Floor Typical Floor 68 psf Mechanical Floor 118 psf (or Typical Floor wt + actual wt of equip.) Roof Typical Metal Deck Roof 31 psf (Includes 8 psf PV panels, +5 psf above corridor) Typical Composite Deck Roof 84 psf (Includes 8 psf PV panels) Roof Extension above Front Entry 13 psf (PV not allowed) Mechanical Equipment • Actual operating weight is by manufacturer. • Weight indicated on drawings is the maximum design load. Notify Architect/Engineer if the manufacturer's operating weight of the equipment provided exceeds the maximum design load, prior to installation of the equipment. <u>Live Loads</u> (live load reduction is applied as allowed by the reference code) Floor ζ Typical Floor 100 psf Exercise Floor Corridors 100 psf 100 psf; 1000 lb on any 2.5 ft sq Upper Level Library Corridors 100 psf; 2000 lb on any 2.5 ft sq > Upper Level Office Corridors ^C Upper Level School Corridors 100 psf Cother Upper Floor Corridors same as occupancies served C Stairs and exit ways 100 psf Storage (light) 125 psf or max load expected Storage (heavy) (Rock Storage) 250 psf or max load expected Roof Typical Roof 20 psf Handrails/Guardrails 50 psf Assembly Intermediate rails/panels 50# on any 1.0 ft sq, in any direction Grab Bar 250# at any point, in any direction Snow Pg = 18 psf Ground snow load Pf = 22 psf Calculated flat roof snow load Minimum flat roof snow load Rf = 25 psf∠ Design uniform snow load 30 psf 것 Amportance factor (snow) Snow exposure factor Ce = 1.0 Ct = 1.0 Thermal factor Other Surcharges per reference code Unbalanced loads per reference code Wind Basic wind speed (3 second gust) V = 104 mph Exposure Category lw = 1.15 Importance factor (wind) Topographical Factor Kzt = 1.0 Kd = 0.85 **Directional Coefficient** G = 0.85 Gust Effect Factor Gcpi = 0.18 Internal pressure coefficient Minimum Net Uplift 16 psf Seismic Analysis Procedure Modal Response Spectrum Analysis Occupancy category le = 1.25 Importance factor - seismic TI = 6.0 sec Long-period transition period Building period coefficient Ct = 0.030 Site Class Spectral acceleration parameters Ss = 1.253 S1 = 0.432 Spectral acceleration parameters Fa = 1.2 Site coefficients Site coefficients Fv = 1.0 Spectral response coefficient Sds = 1.003 Sd1 = 0.432 Spectral response coefficient Seismic design category Steel buckling-restrained braced frames Lateral system Response modification coefficient R = 8.0 Seismic response coefficient Cs = 0.116 Fp = 0.501 x Wp Structural wall out-of-plane ap = 1.0, Fp = 0.481 x Wp Non-structural components(rigid) Non-structural components(flexible) ap = 2.5, Fp = 1.203 x Wp Earth Loading based on geotechnical report by: GeoEngineers dated: January 21, 2021 35 pcf + 13*H seismic surcharge Active pressure (drained) Active pressure (undrained) 80 pcf + 13*H seismic surcharge (includes hydrostatic pressures) 55 pcf + 13*H seismic surcharge At-rest pressure (drained) At-rest pressure (undrained) 90 pcf + 13*H seismic surcharge (includes hydrostatic pressures) An additional 2 feet of fill shall be added to represent a traffic surcharge of 250 psf if vehicles are within .5*H of the wall An additional 1 foot of fill shall be added to represent adjacent 100 psf occupant live load at top of wall condition 290 pcf Passive resistance 0.40 Coefficient of friction

GENERAL STRUCTURAL NOTES

Refer to load maps sheets and drawings for additional loads

CONSTRUCTION LOADS

- Reference code: ASCE/SEI 37-14, Design Loads on Structures During Construction 2. The structure represented in these drawings has been designed to resist vertical and lateral loads prescribed by the reference code in its final constructed condition. The sequence of construction is the responsibility of the general contractor. All loads experienced by the structure due to the incomplete nature of the structure are the sole responsibility of the general contractor. The general contractor must design and provide temporary shoring and bracing until the final built condition, as shown in these drawings, is achieved.
- 3. The structure represented in these drawings has not been designed to resist vertical and lateral loads imparted by construction equipment. All loads experienced by the structure while supporting construction equipment are the sole responsibility of the general contractor. The general contractor must design and provide temporary shoring and bracing where required to support construction equipment.
- 4. Where temporary shoring or bracing is required, retain the services of a structural engineer registered in the project jurisdiction to design and detail the bracing of that equipment for the gravity and lateral forces prescribed by the reference code. Submit the stamped and signed design documents to the project jurisdiction as a deferred submittal for approval prior to performing the work.

GENERAL CONDITIONS

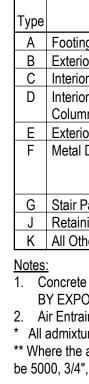
TYPICAL CONDITIONS Typical details are not referenced at all locations for which they apply and at all. Details located on typical detail sheets represent the method of co all locations, unless otherwise indicated in the drawings.

COORDINATION

- 1. The written specifications and the drawings of the architectural, mechanic civil/landscape disciplines are to be used in conjunction with the structura and construction.
- Dimensions for some secondary elements such as windows, doors, walls located only in the architectural drawings. Shop drawing production for s require dimensional information contained in both the architectural and s requests for dimensions in shop drawing submittals will be referred to the 3. The contractor shall coordinate dimensions and conditions between the o
- architectural, mechanical, electrical and civil/landscape disciplines), the s site conditions prior to fabrication and construction. Notify Architect/Engi discrepancies in dimensions or conditions found prior to fabricating and e area of the discrepancy. Architect/Engineer will respond in writing accord the general conditions found in the specifications. Any related work perfo between the discovery of the discrepancy and receipt of the Architect's/E response will be done at the contractor's risk.
- 4. Where the bracing of mechanical, plumbing, fire-suppression and/or elec specifically detailed in the mechanical, plumbing, fire-protection and/or el specifications, retain the services of a structural engineer registered in th project to design and detail the bracing of that equipment for the gravity a prescribed by the governing building code. Submit the stamped and sigr the project jurisdiction as a deferred submittal for approval prior to perform
- Where the bracing of ceilings and other architectural elements is not spe architectural drawings or specifications, retain the services of a structural the jurisdiction of this project to design and detail the bracing of those ele lateral forces prescribed by the governing building code. Submit the star documents to the project jurisdiction as a deferred submittal for approval work
- Provide coordination drawings showing all anticipated penetrations throu elements shown in these drawings. No penetrations through structural e unless already indicated in the structural drawings or approved in writing engineer.

SUBMITTALS

1. Construction utilizing any given material shall not occur until the approve material are received from the Architect/Engineer.



CONCRET

| | LATERAL FORCE AND SEISMIC LOAD RESISTING SYSTEMS | CONCRETE |
|---|--|---|
| nd may not be referenced onstruction to be used at hical, electrical and ral drawings for bidding ls and floor edges are structural elements will structural drawings. All be general contractor. drawings (including the specifications, and the gineer in writing of any executing work in the rding to the provisions of formed by the contractor Engineer's written ctrical equipment is not electrical drawings or he jurisdiction of this and lateral forces uned design documents to rming the work. ecifically detailed in the al engineer registered in ements for the gravity and imped and signed design il prior to performing the ugh the structural elements shall be allowed g by the structural | LATERAL FORCE RESISTING SYSTEM Lateral-forces are transferred by the roof and floor diaphragms to the vertical lateral-force resisting elements (shearwalls, braced frames). Moments and shears resulting from these lateral-forces are transferred to the foundation system by the vertical lateral-force resisting elements. Lateral-forces are transferred to the foundation system by the vertical lateral-force resisting elements. Lateral-forces are transferred to the foundation system by the vertical lateral-force resisting elements. Lateral-forces are transferred to the foundation system by the vertical lateral-force resisting elements. Lateral-forces are transferred to the diacent earth, sliding friction resistance at the soil interface, and overturning resistance of the structure's tributary dead load. Any member designated '(C)' in the drawings is articipating in the Lateral Force Resisting System and is 'Demand Critical'. See the Welding notes and the Special Inspection notes for requirements specific to Demand Critical welds. Discontinuities created by fabrication or erection operations, such as tack welds, erection aids, air-arc gouging and thermal cutting are not allowed within the Protected Zone. Welded, bolted, screwed or shot-in attachments for perimeter edge angles, exterior facades, partitions, duct work, piping or othe construction shall not be placed within the Protected Zone. Where violations of the Protected Zone cocur, inform the Architect/Engineer in writing. Repair the discontinuity as required by the engineer of record's written response. All repairs in the Protected Zone Wilding Restrained Braced Frames (BRBF) Buckling-Restrained Braced Frames are composed of steel beams spanning between steel columns and buckling restrained braces. See sheets S201 and S202 for brace frame elevations. | Reference Codes International Building Code (IBC), 2018 edition, as adopted and amended by the project jurisdiction, Chapter 19 ACI 301-10, Specification for Structural Concrete ACI 316-14, Building Code Requirements for Structural Concrete Strength Provide concrete mix design in accordance with ACI 301, and meeting the requirements of t CONCRETE MIX DESIGN TABLE. Coordination Conduits embedded within slabs, walls or beams shall be placed between rebar mats where double mats occur. The outside diameter of the conduit shall be smaller than 1/4 x the ment thickness and shall be spaced greater than 4 x the conduit outside diameter. Coordinate reinforcing steel placement details with structural embeds and embeds specified other disciplines. Utilize templates for placing steel in congested areas. No concrete work shall be penetrated for piping or ducts, unless shown in the drawings or approved by the Engineer in writing. Execution Provide bar supports as required in the contract documents. Concrete dobies shall be minir 4000 psi with cast-in double annealed 16 ga iron wires for tying. Wire chairs shall have Cla plastic tips. Provide cover as shown in drawings, with a minimum cover as required by the CONCRETE REINFORCING COVER TABLE. Provide rebar splice lengths as shown in the drawings, with a minimum splice as required by CONCRETE REINFORCING SPLICE TABLE. Camber concrete forms as shown plus deflection due to the weight of wet concrete. One-way slabs shall be cambered 1/1000 of the span, unless noted otherwise on the drawing Cambers of less than 1/8^m may be neglected. Air Content and Slump sh |
| | FOUNDATION Reference Codes • International Building Code (IBC), 2018 edition, as adopted and amended by the project jurisdiction, Chapter 18 Strength Capacities are based on geotechnical report and Addendum No. 1 by: GeoEngineers project #: 21342-002-00 dated: January 21, 2021 & June 29, 2022 Allowable soil bearing pressure 3,500 psf Passive equivalent fluid pressure 290 pcf Coefficient of friction 0.40 | place an identical bar on the opposite side of the opening. Alternatively, where the interrupt bar is within 3" of opening edge, rebar may be sprung around the opening with no additiona rebar required on the opposite side of the opening. 10. Provide 3/4" chamfer at all exposed concrete edges, unless noted otherwise. <u>Submittals</u> Mix Designs meeting or exceeding the requirements of the CONCRETE MIX DESIGN TABL must be submitted to and approved by the Engineer prior to use. Provide mix designs whicl correspond to anticipated placement requirements and finish conditions. Deviation from the specified mix design must be demonstrated to be in accordance with ACI 318, Chapter 26 a must be submitted a minimum of two weeks prior to use for approval by the Engineer, with a written explanation of the reason for deviating from the specified mix design. Approval of deviation from the specified mix design is at the discretion of the Engineer. Provide coordinated shop drawings with 1/4" scale elevations of all walls with all reinforcing openings, structural embeds, and embedded items from other disciplines, all shown in conjunction and dimensioned relative to a common datum. Before submitting shop drawing structural review, Mechanical and Electrical contractors must mark size and locations of all required penetrations and embeds on wall elevations. Provide certification to show that all rebar welders hold a current WABO certification and are prequalified according to AWS D1.4 for all weld sizes and positions required. Slab-on-Grade control joints shown in plan are schematic. Contractor shall provide control j layout submittal to Engineer for approval showing all control joints that will be provided, conforming to the maximum joint spacing allowed. |
| | Coordinate Provide the second structural structural full, as described in the Geotechnical Report, over undisturbed native soils or compacted structural full, as described in the Geotechnical Report, over undisturbed native soils. Execution 1. Footing excavations should be cleaned of all loose soil, leveled, and protected from water and construction traffic. 2. Refer to geotechnical report and follow recommendations specific to wet weather earthwork. 3. Refer to geotechnical report and follow recommendations specific to temporary cut slopes. Submittals 1. 9. Suitability of soils for bearing is as described in the geotechnical report. Soil bearing surfaces must be observed and approved by the geotechnical engineer of record prior to pouring foundation concrete. Submit the written field report by the geotechnical engineer of record to the Architect/Engineer for approval. REINFORCING Reference Codes • International Building Code (IBC), 2018 edition, as adopted and amended by the project jurisdiction • ACI 318-14, Building Code Requirements for Structural Concrete • ACI 301-10, Specification for Structural Concrete • AWS D1.4/D1.4M-18, Structural Welding Code - Steel Reinforcing Bars Strength Deformed Bars (new billet stock) ASTM A615 Fy = 60 ksi Weldable Deformed Bars ASTM A706 Fy = 60 ksi | THE APPROVED CONSTRUCTION PLAN DOCUMENTS AND ALL ENGINEERING M BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READI ACCESSIBLE LOCATION. FULL SIZED LEDGIBLE COLOR PLANS A REQUIRED TO BE PROVIDED BY THE PERMITEE ON SITE FOR INSPECTION |

PROVIDE SPECIAL INSPECTION REPORT TO CITY OF PUYALLUP PRIOR TO CONCERT POUR FOR REVISED FOOTING DRAWINGS

| TE MIX DESIGN T | ABLE | | | | | | | | |
|-------------------------------|----------------|--------------|--------------|--|----------|----------|---------------|-----------|--------|
| | | Max | | | Exposure | Categori | ies & Classes | s** | |
| | 28 Day | Aggregate | Max W/C | | Freeze- | Sulfate | Contact w/ | Corrosion | % Air |
| Use | Strength (psi) | Size | Ratio | Required Additives* | Thaw (F) | (S) | Water (W) | (C) | Range |
| ings | 4500 | 1" | 0.50 | - | F1 | S0 | W0 | C1 | 2% max |
| rior Walls & Col's | 4500 | 3/4" | 0.45 | - | F2 | S0 | W0 | C1 | 6% ±1% |
| ior Walls & Col's | 4000 | 3/4" | 0.45 | - | F0 | S0 | W0 | C0 | 2% max |
| ior Slabs & ımn Pour-backs | 4000 | 3/4" | 0.43 | Superplasticizer (6"-8" Slump) | F0 | S0 | W0 | C0 | 2% max |
| rior Slabs | 5000 | 1" | 0.40 | Polyfiber Reinf | F2 | S0 | W1 | C2 | 6% ±1% |
| al Deck Topping | 4000 | 3/4" | 0.43 | Superplasticizer (6"-8" Slump) Polyfiber Reinf | F0 | S0 | WO | C0 | 2% max |
| Pan Topping | 5000 | 3/8" | 0.43 | Polyfiber Reinf | F0 | S0 | W0 | C0 | 2% max |
| ining Walls | 5000 | 3/4" | 0.45 | - | F2 | S0 | W0 | C1 | 2% max |
| Others | Consult with | EOR on case- | -by-case bas | is | | | | | |

Plain Welded Wire Fabric (electrically welded) ASTM A1064 Fy = 60 ksi

Fiber reinforced concrete shall conform to ACI Report 544.1R. Follow manufacturer's

recommended mix quantity, but use no less than 1.5#/cu yd.

1. Concrete mixes A-K shall meet the requirements of ACI 318-14 Chapter 19 and Table 19.3.2.1 REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS

2. Air Entrainment shall be 2% max except where a higher range is required by it's exposure class * All admixtures shall be chloride free otherwise approved by the Engineer

** Where the application applies to more than 1 type, the more stringent design parameters shall be used (e.g. Metal Deck topping would

be 5000, 3/4", 6%, 0.40, F2, SO, W1, C2)

| CONCRETE REINFORCING | COVER TABLE |
|---|----------------|
| Location | Size |
| Cast against and permanently exposed to earth | All |
| Exposed to earth or weather | #5 or smaller |
| | #6 or larger |
| Interior Wall Faces | #11 or smaller |
| | #14 and #18 |
| Slab-on-Grade cast against vapor barrier | #11 or smaller |
| | #14 and #18 |
| Elevated Slabs | #11 or smaller |
| | #14 and #18 |
| Interior Frames - Beams and Columns (to Ties, Spirals, or stirrups) | All |
| Exterior Frames - Beams and Columns (to Ties, Spirals, or stirrups) | All |

1. Can be 3/4 for 1-hour fire - refer to code plan.

2. Can be 1 1/2 for less than 4-hour fire rating, unless exposed to earth or weather - refer to code plan.

| by the project | <u>Reference Codes</u> International Building Code (IBC), 2018 en jurisdiction, Chapter 21 TMS 402/602-16, Building Code Requirer | | | jurisdictio • AISI S-10 | onal Building Code (IB on, Chapter 22 00-16, North Americar |
|--|---|---|---|--|---|
| requirements of the | Execution Provide seismic veneer ties, spaced at 16 typical detail This applies where support Where veneer is not laid in running bond, specification for requirements. Provide hot dip galvanized steel angles or | structure is concrete and/or m joint reinforcement is required | netal studs.} d. See Masonry Veneer | AISI S20 AWS D1 <u>Strength</u> Material | s, including Suppleme 2-15, Code of Standa .3-08, Structural Weld thickness < 54 mil thickness 54 mil & gre |
| rebar mats where an 1/4 x the member | | | | Design | equired by the drawing |
| er. embeds specified in | MET | AL DECKING | | | tion and building loads |
| he drawings or | <u>Reference Codes</u> International Building Code (IBC), 2018 ed jurisdiction, Chapter 22 AISC 360-16, Specifications for Structural AISC 341-16, Seismic Provisions for Structural | dition, as adopted and amend I Steel Buildings | led by the project | | I walls are those show ctural walls, partitions |
| ies shall be minimum rs shall have Class 1 | AWS D1.3-08, Structural Welding Code - Strength | • | | | on of cold-formed met ing members shall ha |
| the CONCRETE | ASTM A653, Gr A, minimum yield 38 ksi. | | | square, t | rue to line and secure turer's approved engir |
| ice as required by the | <u>Coordination</u> 1. Deck gage shown in plan is the minimum finished building. Provide a deck gage who have a state of the state of t | | | Structura in the dra | Il "C" members are no awings. |
| concrete. wise on the drawings. | maximum span requirements, design for of2. Provide acoustic deck where required by | construction loads, and shorin structural or architectural drav | g requirements. vings. Provide acoustic | welding, | g of structural membe or a combination of m nts or according to the |
| end of the pump, ified in the approved | deck with perforated vertical webs and ac | | | 6. Whereve | members and connect or protective coating is with a zinc rich primer |
| on wire. Use wire obies at maximum 24 | Layout deck to span continuously over a r does not permit. | | | <u>Submittals</u> | |
| e rebar into the | Design and provide closure plates at all d around columns. Fasten the deck to supporting framing with | • | | • | ns required to be prov and signed by an eng |
| bars one time only. rebar spacing, for f the opening and | one at each flute perpendicular to framing to framing support, unless noted otherwise | | | | |
| here the interrupted with no additional | puddle weld in composite deck systems.4. Fasten sidelaps of untopped deck with int otherwise. | erlocking punch at 8" maximu | m spacing, unless noted | | |
| Se. | Fasten sidelaps of concrete topped deck v noted otherwise. Provide G90 galvanized deck at exterior a | · | mum spacing, unless | | RCNC2 |
| IX DESIGN TABLE nix designs which Deviation from the 18, Chapter 26 and Engineer, with a | Provide G60 galvanized deck at interior a Factory apply gray acrylic primer over the refer to architectural drawings for location <u>Submittals</u> | pplications. galvanized coating where de s. | | ST | FRUCTI |
| ith all reinforcing, all shown in ing shop drawings for d locations of all | Provide design calculations showing that loads and in-place loads specified in the c shall be stamped and signed by an engine and shop drawings must be approved by of the deck. | contract documents. Calculati eer registered in the project ju | ions and shop drawings risdiction. Calculations | | Ci |
| ertification and are | | | | | |
| d. I provide control joint | Reference Codes | CTURAL STEEL | | | |
| be provided, | International Building Code (IBC), 2018 eq jurisdiction, Chapter 22 AISC 360-16, Specifications for Structural AISC 341-16, Seismic Provisions for Structural | Steel Buildings | led by the project | | |
| | Angles, ChannelsAHSS Square Structural TubeAHSS Rectangular Structural TubeA | ASTM A992 or A572, Gr 50 ASTM A36 ASTM A500, Gr C ASTM A500, Gr C ASTM A500, Gr C | Fy = 50 ksi Fy = 36 ksi Fy = 50 ksi Fy = 50 ksi Fy = 46 ksi | | |
| ION PLANS, | Steel Pipe A | ASTM A53, Gr B | Fy = 35 ksi | | |
| EERING MUST LL | All Steel Plate, UNO A | ASTM A572 or A588 ASTM A572 or A588 ASTM A36 | Fy = 50 ksi Fy = 50 ksi Fy = 36 ksi | | |
| | Steel Plate Designated as 36 ksi Plates 2" thick and thicker, that are part of minimum Charpy V-notch toughness of 20 | f the Lateral Force Resisting S | System, shall have a | | |
| PLANS ARE | permitted by ASTM A673.2. Hot rolled shapes that are part of the Late Charpy V-notch toughness of 20 ft-lb at 70 | 0, | | | |
| BY THE | described in ASTM A6. | | | STRUCTUF | KAL |
| ECTION | <u>Coordination</u> Refer to architectural drawings for dimension including, but not limited to, framing aroun bottom of soffit elevations, wall locations, | nd window and door openings | , top of parapet and | S002 S003 S021 S022 | STRUCTURAL GEN STRUCTURAL GEN TYPICAL FOUNDA TYPICAL CONCRE |
| | Execution 1. The corners of continuity plates and stiffer the Lateral Force Resisting System shall I AWS D1.8 Commentary Section 4, and A | be clipped according to AISC | 341 Commentary F3.5b.4, | \$023 \$024 \$025 \$026 | TYPICAL METAL S TYPICAL METAL S TYPICAL STEEL A TYPICAL STEEL D |
| | Weld access holes shall comply with the r Provide N-Bearing 3/4" diameter bolts thro connections, unless noted otherwise. | - | | S027 S028 | TYPICAL STEEL D |
| | Where connection is not accessible to Tw washers. | vist-off Bolt Guns, provide A32 | 5 Bolts with load indicator | \$029 5020 | TYPICAL BUCKLIN |
| | All exterior exposed structural steel shall t Unless otherwise noted, beams are equal | | | { S030 { S031 | TYPICAL BUCKLIN TYPICAL BUCKLIN |
| | Onless otherwise noted, beams are equal The Contractor shall be responsible for al | • | • | \$100 | |

MASONRY VENEER

8. The Contractor shall be responsible for compliance with all current OSHA requirements. 9. Modification to the structural steel, including holes and copes, shall not be made in the field without prior approval of the Engineer.

1. Shop drawings shall include the following information relative to the Lateral Force Resisting a. Designate all members and connections that are part of the Lateral Force Resisting System. b. Designate all shop welds that are Demand Critical.

c. Designate and dimension all protected zones. d. Include welding requirements as specified in AWS D1.8

| | CONCRETE REINFORCING SPLICE TABLE | | | | |
|-----------------|-----------------------------------|----------------------------|----------------|--------------------|---------------|
| Cover | | | f'c = 4000 psi | | |
| 3" | | Tension Development Length | | Tension Lap Splice | |
| 1 1/2" | Reinforcing Size | Ld (inches) | Top Bars, Ldt | Ls (inches) | Top Bars, Lst |
| 2" | | | (inches) | | (inches) |
| 3/4" | #3 | 15 | 20 | 20 | 26 |
| 1 1/2" | #4 | 19 | 25 | 25 | 33 |
| 1" (see note 1) | #5 | 24 | 32 | 32 | 42 |
| 1 1/2" | #6 | 29 | 38 | 38 | 50 |
| 1" (see note 1) | #7 | 42 | 55 | 55 | 72 |
| 1 1/2" | #8 | 48 | 63 | 63 | 82 |
| 1 1/2" | #9 | 54 | 71 | 71 | 93 |
| | #10 | 60 | 78 | 78 | 102 |
| 2" (see note 2) | #11 | 66 | 86 | 86 | 112 |

Lengths shown are for reinforcing satisfying the following spacing and cover dimensions (multiply

a. walls and slabs - clear cover > db & clear spacing > 2db b. beams and columns - clear cover > db & clear spacing > db

Top bars are horizontal beam reinforcing with more than 12" of concrete below.

lengths shown by 1.5 if these requirements are satisfied):

Tension lap splice lengths shown are for Class B splices (1.3xLd).

4. Multiply lengths by 1.3 for lightweight concrete.

For splices of different bar sizes: use max of Ld of larger bar or Ls of smaller bar.
 Lap sheets of 6x6 Welded Wire Fabric Reinforcing a minimum of 8" each direction.

COLD-FORMED METAL FRAMING

- de (IBC), 2018 edition, as adopted and amended by the project erican Specification for the Design of Cold-Formed Steel Structural plement No. 1 Dated 2018.
- tandard Practice for Cold-formed Steel Framing Welding Code - Sheet Steel
- ASTM A1003, Gr33, 33 ksi & greater ASTM A1003, Gr50, 50 ksi
- awings, design cold-formed steel members and connections to resist loads described in these documents.

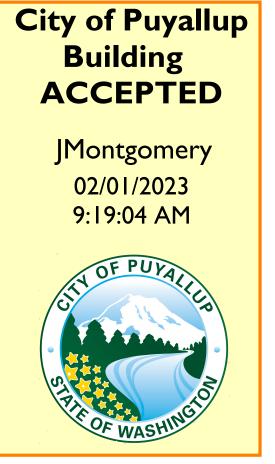
e shown in the structural drawings. Refer to architectural drawings for tions and soffits.

d metal stud walls shall conform to ASTM C1007.

- all have ends squarely cut by shearing or sawing, be installed plumb, ecurely fastened per the contract documents or according to the engineered connection design are not permitted to have splices or cut-outs in the flanges, unless shown
- embers shall be accomplished by screws, power actuated fasteners, n of methods. The type, size, and spacing shall be as required by the
- to the manufacturer's approved engineered connection design. nnectors with minimum protective coating of G-60 galvanized finish. ting is damaged or removed for the purpose of fastening, repair by

e provided by the manufacturer shall include drawings and calculations, In engineer registered to work in the jurisdiction of this project.

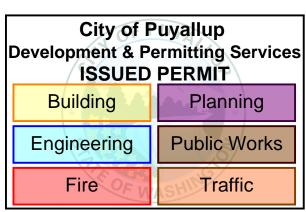
20221036 TURAL REVISION



SHEET LIST

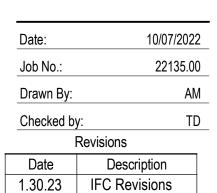
| S001 | STRUCTURAL GENERAL NOTES |
|-----------------|--|
| S002 | STRUCTURAL GENERAL NOTES |
| S003 | STRUCTURAL GENERAL NOTES |
| S021 | TYPICAL FOUNDATION DETAILS |
| S022 | TYPICAL CONCRETE AND VENEER DETAILS |
| S023 | TYPICAL METAL STUD DETAILS |
| S024 | TYPICAL METAL STUD DETAILS |
| S025 | TYPICAL STEEL AND METAL DECK DETAILS |
| S026 | TYPICAL STEEL DETAILS |
| S027 | TYPICAL STEEL DETAILS |
| S028 | TYPICAL BUCKLING-RESTRAINED BRACED FRAME DETAILS |
| S029 | TYPICAL BUCKLING-RESTRAINED BRACED FRAME DETAILS |
| S030 | TYPICAL BUCKLING-RESTRAINED BRACED FRAME DETAILS |
| S031 | TYPICAL BUCKLING-RESTRAINED BRACED FRAME DETAILS |
| \$100 | |
| S101 | FOUNDATION/ LEVEL 1 FLOOR PLAN |
| S102 | LEVEL 2 FRAMING PLAN |
| S103 | LEVEL 3 FRAMING PLAN / LOW ROOF FRAMING PLAN |
| S104~~ | ROOF FRAMING PLAN |
| S111 | SLAB ON GRADE CONTROL JOINT PLAN |
| \$201 | BRACE FRAME ELEVATIONS |
| S202 | BRACE FRAME ELEVATIONS |
| S203 | EXTERIOR WALL ELEVATIONS |
| S204 | EXTERIOR WALL ELEVATIONS |
| S205 | EXTERIOR WALL ELEVATIONS |
| S301 | FOUNDATION DETAILS & SECTIONS |
| , S 311, | FRAMING DETAILS & SECTIONS |
| S312 | FRAMING DETAILS & SECTIONS |
| S313 | FRAMING DETAILS & SECTIONS |
| S314 | FRAMING DETAILS AND SECTIONS |
| \$401 | ENLARGED STAIR & ELEVATOR PLANS |
| S402 | ENLARGED STAIR PLANS |
| S403 | ENLARGED VESTIBULE PLANS & DETAILS |
| ,S404 | |
| S410 | STAIR DETAILS & SECTIONS |
| S411 | STAIR DETAILS & SECTIONS |
| \$501 | |
| S502 | LOAD MAPS |











STRUCTURAL **GENERAL NOTES**

WELDS

- Reference Codes AWS D1.1/D1.1M-15, Structural Welding Code - Steel
- AWS D1.3-08, Structural Welding Code Sheet Steel • AWS D1.4/D1.4M-18, Structural Welding Code - Steel Reinforcing Bars

AISC 341-16, Seismic Provisions for Structural Steel Buildings

- AWS D1.8-/D1.8M-16, Structural Welding Code Seismic Supplement
- <u>Strength</u>
- Electrodes: Minimum yield strength = 70 ksi for all weld processes
- 1. Where welds are designated as demand critical, they shall be made with a filler metal capable of providing a minimum Charpy V-notch toughness of 20 ft-lb at -20 degrees F as determined by the appropriate AWS classification test method or manufacturer certification, and a minimum Charpy V-notch toughness of 40 ft-lb at 70 degrees F per AWS D1.8.
- 2. All other weld used in members and connections in the Lateral Force Resisting System shall be made with a filler metal that can produce welds that have a minimum Charpy V-notch toughness of 20 ft-lb at 0 degrees F, as determined by the appropriate AWS A5 classification test method or manufacturer certification.
- Execution
- 1. Welding shall be performed in accordance with a welding procedure specification (WPS) as required in AWS D1.1. The WPS variables shall be within the parameters established by the filler metal manufacturer.
- 2. Field welding symbols have not necessarily been indicated on the drawings. Where no field welding symbols are shown, it is the Contractor's responsibility to coordinate the use of shop and field welds.

<u>Submittals</u>

Critical welds.

- 1. All welders shall be AWS or WABO certified. Provide certification that each welder is prequalified per AWS D1.1 for each position and weld type that the welder will perform.
- 2. Provide written Welding Procedure Specifications adhering to AWS D1.1 for all welds to be performed. Welding Procedure Specifications must be approved by the Owner's testing agency prior to fabrication or erection.
- 3. Wherever a weld is included in the Lateral Force Resisting System, provide a Welding Procedure Specification which includes all essential variables of AWS D1.1 as well as the following: a. Type of power source (constant current or constant voltage)
- b. Manufacturer and trade name of electrodes used in Demand Critical welds c. Manufacturer's certification of notch toughness requirements for electrodes used in Demand

BOLTS/RODS

Reference Codes • AISC, Specification for Structural Joints Using ASTM A325 or A490 Bolts.

- <u>Strength</u> ASTM A307, Snug Tight Erection Bolts in Steel ASTM F1852, Twist-off Tension Control Bolts All other Bolts in Steel ASTM A307 All Bolts in Wood ASTM F1554, Grade 55 CAnchor Rods Anchor Rods at BRB Columns ASTM F1554, Grade 105 Threaded Rods ASTM A36 Hardener Steel Washers ASTM F436 ASTM A563, Heavy Hex Nuts Nuts Execution 1. Place hardened steel washers between nuts and slotted or oversized holes.
- 2. All high-strength bolts shall be installed, tightened, and inspected in accordance with the AISC Specification for Structural Joints using ASTM A325 Bolts. The criteria for slip critical connections
- shall apply to all connections, unless noted as snug tight. . Use galvanized bolts, rods, nuts and washers wherever used in exterior applications and

wherever connecting galvanized steel elements.

<u>Submittals</u>

1. Include anchor rod setting templates with all base plate shop drawings.

SHEAR CONNECTOR STUDS

Reference Codes • AWS D1.1/D1.1M-15, Structural Welding Code - Steel AISC 360-16, Specifications for Structural Steel Buildings

- Execution
 1. Shear connectors shall be installed per manufacturer's recommendation, using the
- manufacturer's specified equipment. 2. Provide shear studs at a maximum spacing of 12" on center at all beams supporting a steel deck with concrete fill or a cast-in-place concrete slab, even if no stud quantity is shown in plan for that beam.

<u>Submittals</u>

1. Provide manufacturer's certification of conformity with AWS D1.1.

FASTENERS

Execution 1. At repetitive fasteners, place end fasteners no more than 6" from the end of the member. 2. Locate fasteners according to the drawings and with the following minimum edge distance and spacing, unless noted otherwise:

| Fastener | Typical size, UNO | Substrate | Min Edge Dist. | Min Spacing |
|--------------------|-------------------|-----------|-------------------|-------------|
| Powder Driven | 0.157Ø x 1 long | Concrete | 3" | 4"oc |
| Powder Driven | 0.157Ø x 1/2 long | Steel | 1 1/2" | 1 1/2"oc |
| Self-Tapping Screw | 1/4Ø x 1 3/4 long | Concrete | 2 1/2" | 3"ос |
| Self-Tapping Screw | 1/4Ø x 1 3/4 long | Steel | 1 1/2" | 1 1/2"oc |

DEFORMED BAR ANCHORS

Reference Codes • AWS D1.1/D1.1M-15, Structural Welding Code - Steel

AISC 360-16, Specifications for Structural Steel Buildings

<u>Strength</u> ASTM A496 and requirements from Type C studs in accordance with AWS D1.1

Execution 1. Deformed Bar Anchors shall be installed per manufacturer's recommendation, using the manufacturer's specified equipment

<u>Submittals</u> 1. Provide manufacturer's certification of conformity with AWS D1.1

WOOD STRUCTURAL PANELS

Reference Codes • International Building Code (IBC), 2018 edition, as adopted and amended by the project jurisdiction, Chapter 23

Strength Plywood sheathing shall be grade Structural I. Exterior glue shall be in conformance with the building code, United States Voluntary Product Standards PS-1 or PS-2.

Execution 1. Stagger panel end joints.

- 2. Provide approved edge clips at 24 inches on center at unblocked roof and floor sheathing edges.
- 3. Provide 1/8 inches gap between all abutting panel edges.
- 4. Provide the following minimum nailing unless noted otherwise on plans: a. 8d at 6 inches on center at all supported panel edges. b. 8d at 12 inches on center field nailing.

CONSTRUCTION ADMIN **Deferred Submittals**

The following items are defined as Deferred Submittal Structural Components:

- Concrete mix Interior metal stud systems: walls, soffits, and ceilings
- Metal deck Fall restraint system
- Temporary shoring/bracing
- MEP anchorage and bracing Buckling restrained braces and their gusset plate connections
- Precast concrete elements
- Roof curbs for MEP equipment Vibration isolation system for MEP equipment
- Seismic bracing for architectural ceilings
- Stairs where indicated on plan
- 1. Deferred Submittal components are intended to be vendor designed and have not be by the Architect/Engineer. Refer to the drawings, the specifications, and the materi these general notes for design and submittal requirements.
- 2. Deferred Submittal components have not been permitted under the base building a The contractor shall submit the approved submittals for the Deferred Submittal com building official. Deferred Submittal components shall not be installed until the build
- has permitted the Deferred Submittal. When the manufacturer is registered and approved to perform work without special the Contractor is to submit to the Building Official certificates of compliance from the manufacturers at the completion of manufacture stating that the work was performe accordance with the approved construction documents.

Structural Observations

- 1. Structural Observation by the Structural Engineer is for the purpose of confirming g conformance of the construction with the design intent of the structure.
- 2. Structural observations will occur as required to confirm general conformance of the
- with the design intent of the structure. 3. Structural Observation is not intended to review the Contractor's construction proceed
- Contractor's conformance with the contract. 4. Structural Observation is not intended to replace the required Special Inspection p

Special Inspection

Special inspections shall be performed by an agency which:

- 1. Is employed by the owner; 2. Is qualified to perform special inspection activities in accordance with IBC Sect
- 3. Has been approved by the building official to perform special inspections.

The special inspector shall provide written documentation of qualifications per IBC sect The special inspector shall furnish inspection reports and a final report in accordance 1704.2.4.

The construction or work for which special inspection is required shall remain accessible of special inspection purposes until completion of the required special inspections.

Each contractor responsible for the construction of a main wind- or seismic force-resisting designated seismic system or a wind- or seismic-resisting component listed in the state inspections shall submit a written statement of responsibility to the building official and t to the commencement of work on the system or component. The contractor's statement responsibility shall contain acknowledgement of awareness of the special requirements the statement of special inspection.

Fabricators

The special inspector shall verify fabrication and implementation procedures of the follo IBC Section 1704.2.5 unless the fabricator is registered and approved by the building of perform such work without special inspection. At the completion of fabrication, the app shall submit a certificate of compliance to the building official stating that the work was p accordance with the approved construction documents.

1. Structural Steel - to include the requirements of AISC 360 Chapter N. 2. Ready Mix Concrete

3. Light-gage Steel Studs 4. Light-gage Metal Deck

| SUBMITTALS TO SPECI | AL INSPECTOR CERTIF | ICATE |
|---------------------|--|---|
| Welding | Structural Steel Light Gage Steel Reinforcing Welding | AWS D1.1 Prequalification AWS D1.3 Prequalification AWS D1.4 Prequalification WABO Certified (all welders) |
| Bolting | High Strength Bolts | Manufacturer's Letter of Certificat |
| CMU Walls | Block Units Grout Mortar | Manufacturer's Letter of Certificat Manufacturer's Letter of Certificat Manufacturer's Letter of Certificat |
| Adhesive Anchor | Epoxy Adhesive | Manufacturer's Letter of Certificat |
| Concrete | All Concrete Material All tratio in truck | trip tickets, including water/cement |
| Slab-on-Grade | Concrete | In place water/cement ratio test re |
| Metal Deck Topping | Concrete | In place water/cement ratio test re |
| | tele hofens installation hosi | |

Inspector to review submittals before installation begins. Inspector must inspect job from approved & stamped design & shop drawings, including all clarifications, both written & in drawing form.

| | <u>Seismic Requirements (IBC 1704.3.2)</u> | Steel Construction (IBC 1705.2 and AISC 360 Chapter N) |
|---------------------------------------|--|--|
| | Special Inspections for Seismic Resistance (IBC 1705.12) | Special inspection for structural steel shall be in accordance with the quality assurance (QA) requirements of AISC 360. |
| | Seismic Structural Steel and Steel Elements (IBC 1705.12.1, 1705.12.1.2 and AISC 341 Chapter | |
| | J): | Inspection of welding shall be in accordance with; |
| | Special inspection for structural steel seismic force-resisting systems (moment frames, braced frames, steel plate shear walls, etc) and structural steel elements (struts, collectors, | AISC 360 sections N4.2 and N5.4 AISC 360 Table N5.4-1 - Inspection Tasks Prior to Welding |
| | chords, foundation elements, etc) shall be in accordance with the quality assurance (QA) | 3. AISC 360 Table N5.4-2 - Inspection Tasks During Welding |
| | requirements of AISC 341 and as noted below; | 4. AISC 360 Table N5.4-3 - Inspection Tasks After Welding |
| | 1. The special inspector shall provide written documentation of practices and | 5. Nondestructive testing of welded joints shall be in accordance with AISC 360 |
| | personnel as required by AISC 341 sections J3 and J4. 2. Inspection of welding shall be in accordance with AISC 341 Section J6 and Tables | sections N4.3 and N5.5 |
| | J6-1, J6-2, and J6-3, inspection tasks prior, during, and after welding. | Inspection of high-strength bolting shall be in accordance with; |
| | 3. Inspection of high-strength bolting shall be in accordance with AISC 341 Section J7 | 1. AISC 360 sections N5.6 |
| not been designed | and Tables J7-1, J7-2, and J7-3, inspection tasks prior, during, and after bolting.Inspection of protected zones and reduced beam section moment frames shall be in | AISC 360 Table N5.6-1 - Inspection Tasks Prior to Bolting AISC 360 Table N5.6-2 - Inspection Tasks During Bolting |
| terial sections of | accordance with AISC 341 section J8 and table J8-1 | 4. AISC 360 Table N5.6-3 - Inspection Tasks After Bolting |
| g application. | 5. Inspection of composite structures shall be in accordance with AISC 341 section J9 | · |
| components to the | and table J9-1, J9-2, and J9-3, inspection tasks prior, during and after concrete | Other Inspection tasks, including inspection of anchor rods and embedments supporting structural steel shall be in accordance with AISC 360 N5.8. |
| ouilding official | placement. | Structural steel shall be in accordance with AISC 500 N5.6. |
| aial increation | Structural Wood Construction (IBC 1705.12.2): | Inspection of composite construction, including steel deck, headed stud anchors shall be in |
| cial inspection, 1 the | Structural Wood seismic force-resisting systems (shear walls, diaphragms, collectors, drag | accordance with; |
| rmed in | struts, hold downs, etc) shall be inspected in accordance with IBC Section 1705.12.2. | AISC 341 Section J9 AISC 341 Tables J9.1 - J9.3 - Inspection of Steel Elements of Composite |
| | Structural Cold-Formed Steel Light Frame Construction (IBC 1705.12.3): | Construction Prior to Concrete Placement |
| | Cold-formed steel light frame seismic force-resisting systems (shear walls, braces, | |
| g general | diaphragms, collectors, drag struts, hold downs, etc) shall be inspected in accordance with IBC Section 1705.12.3. | Quality assurance inspections, testing and report submittal shall be in accordance with AISC 360 sections N5.2 and N7. |
| | | |
| f the construction | Designated Seismic Systems (IBC 1705.12.4): | Cold-Formed Steel Deck (IBC 1705.2.2) |
| ocedures or the | The special inspector shall examine architectural, mechanical, and electrical components, | Special inspections and qualification of welding special inspectors for cold-formed steel floor and |
| | supports, and attachments indicated in Table 13.2-1 of ASCE 7 and verify that the label, anchorage or mounting conforms to the certificate of compliance required by Sections 13.2.1 | roof deck shall be in accordance with the quality assurance inspection requirements of SDI QA/QC and in accordance with IBC Section 1705.2.2. |
| n program. | and 13.2.2 of ASCE 7. | |
| | | Concrete Construction (IBC 1705.3) |
| | Architectural Components (IBC 1705.12.5): Periodic special inspection is required during erection and fastening of exterior cladding, | Special inspection for concrete construction shall be in accordance with IBC Table 1705.3 - Required Verification and Inspection of Concrete Construction. |
| | interior and exterior veneer, and interior and exterior non-bearing walls over 30 feet in height | Required vehication and inspection of conclete construction. |
| Section 1704.2; | above grade or walking surface, and for anchorage of access floors. Inspection and | Masonry Construction (IBC 1705.4) |
| beculoit 1704.2, | limitations to be per IBC Section 1705.12.5. | Special inspections and tests for masonry construction shall be in accordance with the quality |
| | Mechanical, Electrical and Plumbing Components (IBC 1705.12.6): | assurance requirements of TMS 402-16 section 1.3 and TMS 602-16 section 1.6. (use for risk categories I, II, or III) |
| ection 1704.2.1. | Periodic special inspection is required during the installation and anchorage of the following | 1. Inspection and testing of CMU shall be in accordance with TMS 602-16 Table 3 and |
| e with IBC Section | items: | Table 4 (Level 2 Quality Assurance) |
| | Electrical equipment for emergency or standby power systems. Piping systems designed to carry hazardous materials and their associated | Inspection of Masonry Veneer shall verify compliance with the approved submittals. (Level 1 Quality Assurance) |
| | mechanical units. | (Level 1 Quality Assurance) |
| sible and exposed | 3. Ductwork designed to carry hazardous materials. | (use for risk category IV) |
| | Vibration isolation systems where a nominal clearance of 1/4 inch (6.4 mm) or less is required between the equipment support frame and restraint. | Inspection and testing of CMU shall be in accordance with TMS 602-16 Table 3 and Table 4 (Level 3 Quality Assurance) |
| isting system, | 5. Minimum clearances of Mechanical and electrical equipment, including duct work, | 2. Inspection and testing of Masonry Veneer shall be in accordance with TMS 602-16 |
| atement of special | piping systems and their structural supports per IBC section 1705.12.6.6 and ASCE | Table 3 and Table 4 (Level 2 Quality Assurance) |
| nd the owner prior ent of | 7 Section 13.2.3 | |
| ents contained in | Storage Racks (1705.12.7): | Soils (IBC 1705.6) Special inspection for existing site soil conditions, fill placement and load-bearing requirements |
| | Periodic special inspection is required during the anchorage of storage racks 8 feet (2438 | shall be in accordance with; |
| | mm) or greater in height per IBC Section 1705.12.7. | 1. IBC 1705.6 |
| ollowing items per | Seismic Isolation Systems (IBC 1705.12.8) | 2. IBC Table 1705.6 - Required verification and Inspection of Soils |
| g official to | Periodic special inspection is required during the fabrication and installation of seismic | Fabricated Items (IBC 1705.10) |
| pproved fabricator as performed in | isolation systems in accordance with IBC Section 1705.12.8. | Special inspections of fabricated items shall be in accordance with IBC Section 1705.10. |
| | Cold Formed Steel Special Polited Moment Frames (IPC 1705 12.0) | Sprayed Fire Registent Materials (IRC 1705 14) |
| | Cold-Formed Steel Special Bolted Moment Frames (IBC 1705.12.9) Periodic special inspection is required during the installation of cold-formed special bolted | <u>Sprayed Fire-Resistant Materials (IBC 1705.14)</u> Special inspection for sprayed fire-resistant materials shall be in accordance with IBC Sections |
| | moment frames in accordance with IBC Section 1705.12.9. | 1705.14.1 though 1705.14.6 |
| | Testing and Qualification for Opiomic Desistance (IDO 1705 12) | Mastia and lature accept Fire Desisting Costings (IDC 4705 45) |
| | Testing and Qualification for Seismic Resistance (IBC 1705.13) Seismic Structural Steel and Steel Elements (IBC 1705.13.1 and AISC 341): | Mastic and Intumescent Fire-Resisting Coatings (IBC 1705.15) Special inspection for mastic and intumescent fire-resistant materials shall be in accordance with |
| | Nondestructive testing for welded joints within the structural steel seismic force-resisting | IBC Sections 1705.15 and AWCI 12-B |
| | system shall be in accordance with section J6.2 of AISC 341. This includes testing of k-area | |
| | welds, CJP Groove welds, where base material is greater than 1.5" thick, welded splices, thermally cut surfaces or beam copes and access holes, reduced beam section repairs, and | <u>Fire-Resistant Penetrations and Joints (IBC 1705.17)</u> Special inspection for fire-resistant penetrations and joints shall be in accordance with IBC |
| | weld tab removals. | Sections 1705.17, 1705.17.1, and 1705.17.2 |
| ication | | |
| | Concrete Reinforcement (IBC 1705.12 Item 1 and 1705.12.1): Certified mill test reports indicating compliance with Section 20.2.2 of ACI 318 shall be | Smoke Control (IBC 1705.18) Special inspection for smoke control systems shall be in accordance with IBC Sections 1705.18 |
| ication | provided for each shipment of reinforcement used in those elements designated in the | |
| ication ication | drawings as shear walls, moment frames, and coupling beams. | Ę |
| | Saismic Cartification of Designated Science Systems (IBC 1705 12.2) | <pre> </pre> |
| ication | Seismic Certification of Designated Seismic Systems (IBC 1705.13.3) Manufacturer's certification of seismic qualification in accordance with Section 13.2.2 of | |
| ent | ASCE 7 shall be provided for active mechanical and electrical equipment that must remain | |
| ent | operable following the design earthquake ground motion and for components with hazardous | |
| | substances. | |
| st results | Seismic Certification of Architectural, Mechanical and Electrical Components (IBC 1705.13.2): | Ę |
| st results | Manufacturer's certification of seismic qualification by analysis, testing or experience data in | <pre>}</pre> |
| | accordance with ASCE 7 Section 13.2 as well as the applicable sections indicated in ASCE 7 Table 13.2-1 shall be provided for architectural, mechanical and electrical components, | |
| | Table TOLE T SHAIL DE PLOYNEEL IVE ALCHIEGULIAL, HIGHIAHIGAI AHU EIGUIHAI GUHIDUHCHES. | |

STATEMENT OF SPECIAL INSPECTIONS

supports and attachments per IBC Section 1705.13.2.

Special inspections for wind resistance are not required.

Wind Requirements (IBC 1705.11)

Seismic Requirements (IBC 1704.3.2)

PRCNC20221036 STRUCTURAL REVISION

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City of Puyallup

Development & Permitting Services

ISSUED PERMIT

Planning

Public Works

Traffic

Building

Engineering

Fire

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Job No.

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Checked by:

Revisions Date Description 1.30.23 IFC Revisions

STRUCTURAL

GENERAL NOTES

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10/07/2022

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STATEMENT OF SPECIAL INSPECTIONS (cont.)

Steel Construction (IBC 1705.2 and AISC 360 Chapter N)

| | ABBREVIATIONS | |
|----------------------|--|----------------------|
| <u>*MISC</u> ' | INCH, INCHES | <u>F</u> F-GROUT |
| # % | NUMBER or POUND PERCENT | FAB FB |
| <u>s</u> | AND FOOT, FEET | FCJ FDN, FDTN |
| = @ | EQUAL | FFE FIL |
| SL FL | CENTERLINE FLAT PLATE | FIN FLG |
| - - PL | ANGLE PLATE | FLI FLR |
| SQ/FT | SQUARE FOOT DEGREE | FOB |
| £ Ø | PLUS OR MINUS DIAMETER | FOM FOS |
| ≤ ≥ | LESS THAN OR EQUAL TO MORE THAN OR EQUAL TO | FOSW |
| <u>A</u> | | FOW |
| AB ACI | ANCHOR BOLT AMERICAN CONCRETE INSTITUTE | FRMG FS |
| ADD ADDL | ADDENDUM ADDITIONAL | FT FTG |
| ADH ADJ | ADHESIVE ADJACENT | <u>G</u> |
| AEC AESS | ARCHITECTURAL, STRUCTURAL and ENGINEERING ARCHITECTURALLY EXPOSED STRUCTURAL | GA GALV |
| AFF | STEEL ABOVE FINISH FLOOR | GB GC |
| AHU AISC | AIR HANDLING UNIT AMERICAN INSTITUTE of STEEL | GLB GP |
| ALT | CONSTRUCTION | GR GWB |
| ANCH Ansi | ANCHOR, ANCHORAGE AMERICAN NATIONAL STANDARDS | <u>H</u> HAS |
| APPROX | INSTITUTE APPROXIMATE | HCP HCS |
| AR Arch | ANCHOR ROD ARCHITECT, ARCHITECTURAL | HDG HDR |
| ASCE ASTM | AMERICAN SOCIETY of CIVIL ENGINEERS AMERICAN SOCIETY FOR TESTING AND | HGR HORIZ, H |
| ATR | MATERIALS ALL THREADED REBAR | HP HSB |
| aws <u>B</u> | AMERICAN WELDING INSTITUTE | HSS HT |
| BAL BCX | BALANCE BOTTOM CHORD EXTENSION | HVAC <u>I</u> |
| BF BLDG | BRACED FRAME BUILDING | IBC ICBO |
| BLKG BM | BLOCKING BEAM | ICC-ES |
| BOD BOF | BOTTOM OF DECK BOTTOM OF FOOTING, FOUNDATION | ICMU ID |
| BOS BOT | BOTTOM OF STEEL BOTTOM | IF IJ |
| 3P 3RB | BASE PLATE or BUTTON PUNCH BUCKLING RESTRAINT BRACE | IN INCL |
| BRG BS | BEARING BOTH SIDES | INFO INSUL |
| BSMT BTWN | BASEMENT BETWEEN | INT INV |
| <u>C</u> | COLLECTOR | <u>J</u> JST |
| (c) C C-C | CAMBER or CHANNEL CENTER TO CENTER | JT, JTS K |
| C-GROUT CANT | COURSE GROUT CANTILEVER | k, KIP |
| CF CFP | CUBIC FOOT POLYFIBER REINFORCING (SEE SPECS) | KSF ksi |
| CIP CJ | CAST-IN-PLACE CONTROL JOINT | <u>L</u> L |
| CJP CL | COMPLETE JOINT PENETRATION CENTERLINE | LAT LB |
| CLR CLT | CLEAR, CLEARANCE CROSS LAMINATED TIMBER | LE LF |
| CMU COL | CONCRETE MASONRY UNIT COLUMN | LFRS LGT, LONG |
| COMP | COMPOSITE or COMPRESSION CONCRETE | LIB LIN |
| CONFIG | CONFIGURATION | LIW LL |
| CONST | CONSTRUCTION CONTINUOUS | LLH LLV |
| CONTR | CONTRACTOR COORDINATE | LNDG LNTL |
| CRSI | CONCRETE REINFORCING STEEL INSTITUTE CENTER, CENTERED | LOC LP |
| CU CW | CUBIC CURTAIN WALL | LSH LSL |
| CY | CUBIC YARD | LVL <u>M</u> |
| <u>D</u> 1 | PENNY (NAIL) | MAS MATL |
| DBA DBL | DEFORMED BAR ANCHOR DOUBLE | MAX MB |
| DC DEG | DEMAND CRITICAL DEGREE | MC MCR |
| DEMO DIA | DEMOLISH, DEMOLITION DIAMETER DIAGONAL | MECH MEP |
| Diag Diaph Dia | DIAGONAL DIAPHRAGM DIMENSION | MEZZ MF |
| DIM DISC | DISCONTINUE, DISCONTINUOUS DEAD LOAD | MFR MID |
| DL DN | DOWN | MIN MISC |
| do. DP, D DTL | DITTO DEEP, DEPTH DETAIL | MLB MO |
| owg, dwgs | DRAWING, DRAWINGS | MPT MT |
| E | DOWEL, DOWELS | мтL <u>N</u> |
| EA EB | EACH EXPANSION BOLT | N-GROUT NIC |
| EF EJ | EACH FACE EXPANSION JOINT | NLB NO |
| EL ELECT | ELEVATION ELECTRICAL | NOM NS |
| ELEV EMBED | ELEVATOR EMBEDMENT | NTS O |
| Engr Eod | ENGINEER EDGE OF DECK | oc |
| eos Eq | EDGE OF SLAB EQUAL | OD OF |
| eqp, equip Es | EQUIPMENT EACH SIDE | OH OPNG OPP |
| EW EXIST, (E) | EACH WAY EXISTING | OPP OPP HD OPT |
| EXP EXT | EXPANSION EXTERIOR | OPT OSB OW I |
| | | OWJ |

| | ABBREVIATIONS |
|--------------|---|
| ROUT | FINE GROUT |
| 3 | FABRICATE FLAT BAR |
| J N, FDTN | FLOOR CONTROL JOINT FOUNDATION |
| E. | FINISH FLOOR ELEVATION |
| | FILLET FINISH |
| 3 | FLANGE FERRULE LOOP INSERT |
| א 3 | FLOOR FACE OF BRICK |
| C M | FACE OF CONCRETE FACE OF MASONRY |
| 5 | FACE OF STUD |
| SW V V | FACE OF STEM WALL |
| N C | FACE OF WALL FLANGE BAR COUPLER |
| MG | FRAMING FAR SIDE |
| 3 | FOOT, FEET FOOTING |
| | |
| LV | GAUGE, GAGE GALVANZIED |
| | GRADE BEAM GENERAL CONTRACTOR |
| 3 | GLUE LAMINATED BEAM GUSSET PLATE |
| B | GRADE, GRADING GYPSUM WALL BOARD |
| D | GTFSOW WALL BOARD |
| S P | HEADED ANCHOR STUD HOLLOW CORE PLANK |
| S G | HOLLOW CORE SLAB HOT DIPPED GALVANIZED |
| R | HEADER |
| r Riz, h | HANGER HORIZONTAL |
| 3 | HIGH POINT or BEARING PILE HIGH STRENGTH BOLT |
| 5 | HOLLOW STRUCTURAL SECTION HEIGHT |
| AC | HEATING/ VENTILATION/ AIR CONDITIONING |
| | INTERNATIONAL BUILDING CODE |
| 0 | INTERNATIONAL CONFERENCE of BUILDING OFFICIALS |
| -ES IU | ICC EVALUATION SERVICE INSULATED CONCRETE MASONRY UNIT |
| | INSIDE DIAMETER INSIDE FACE |
| | ISOLATION JOINT |
| L | INCH, INCHES INCLUDED, INCLUDING |
| o Ul | INFORMATION INSULATION |
| | INTERIOR INVERT |
| - | |
| JTS | JOIST JOINT, JOINTS |
| (IP | KILOPOUND |
| = | KIPS PER SQUARE FOOT KIPS PER SQUARE INCH |
| | |
| г | ANGLE or LENGTH LATERAL |
| | LAG BOLT OR POUND LEFT END |
| RS | LINEAR FOOT LATERAL FORCE RESISTING SYSTEM |
| r, long | LONGITUDINAL |
| | LOAD INDICATOR BOLT LINEAR |
| I | LOAD INDICATOR WASHER LIVE LOAD |
| ł / | LONG LEG HORIZONTAL LONG LEG VERTICAL |
|)G | LANDING |
| rL C | LINTEL |
| 1 | LOW POINT LONG SLOTTED HOLE |
| - | LAMINATED STUD LUMBER LAMINATED VENEER LUMBER |
| - | LAMINATED VENEER LOMBER |
| S TL | MASONRY MATERIAL |
| X | MAXIMUM MACHINE BOLT (A-307) |
| _ | MISCELLANEOUS CHANNEL |
| R CH | MODIFIED CHLOROPRENE RUBBER MECHANICAL |
| P ZZ | MECHANICAL, ELECTRICAL, PLUMBING MEZZANINE |
| | MOMENT FRAME |
| R) | MANUFACTURER MIDDLE |
| I 6C | MINIMUM MISCELLANEOUS |
| B | MICROLAM BEAM MASONRY OPENING |
| Т | MAGNETIC-PARTICLE TEST |
| L | STRUCTURAL TEE CUT FROM 'M' SECTION METAL |
| RUIT | NON-SHRINK GROUT |
| ; | NOT IN CONTRACT |
| 3 | NON-LOAD BEARING NUMBER |
| Μ | NOMINAL NEAR SIDE |
| 6 | NOT TO SCALE |
| | |

ON CENTER OUTSIDE DIAMETER OUTSIDE FACE OVERSIZED HOLE PNGOPENINGPPOPPOSITEPP HDOPPOSITE HAND OPTIONAL ORIENTED STRAND BOARD OPEN WEB JOIST

| | ABBREVIATIONS | |
|------------|--|---|
| | POWER ACTUATED FASTENER | |
| | PRECAST CONCRETE | |
| | POUNDS PER CUBIC FOOT POWER DRIVEN FASTENERS | |
| И | PENETRATION PERIMETER | |
| | PERPENDICULAR | |
| | PARTIAL HEIGHT WALL PARTIAL JOINT PENETRATION | 20LH |
| | PLATE POUNDS PER LINEAL FOOT | 2011 |
| /D | PLYWOOD | |
| AB | PARTIAL PENETRATION PREFABRICATED | |
| IM R | PRELIMINARY PRESTRESSED | ` 1 |
| | PRESTRESSED CONCRETE | H-[#] W |
| | POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH | - |
| | PARALLEL STRAND LUMBER POINT | |
| | POST-TENSION CONCRETE | حـــــح |
| | POLYTETRAFLUOROETHYLENE POLYVINYL CHLORIDE | |
| | QUANTITY | Backspan _ |
| | QUANTIT | 20010pun |
| | RADIUS REINFORCED CONCRETE | - |
| | REFER TO | H |
| = | REFERENCE REINFORCE(D), (ING), (MENT) | |
|) | REQUIRED | |
| | REVISION, REVISED | |
| | RANDOM FIBER REINFORCED ELASTOMERIC RUSTICATION JOINT | |
| | ROUGH OPENING | |
| | ROOF TOP UNIT | |
| | AMERICAN STANDARD SHAPE SLIP CRITICAL | |
| SCHED | SCHEDULE | ······································ |
| | SECURITY SECTION | |
| | SQUARE FOOT SHEET | <u> </u> |
| ì | SHEATHING | |
| | SIMILIAR SLAB ON GRADE | |
| | SPACING | |
| | SPECIFICATION SQUARE | <u> </u> |
| | STAINLESS STEEL SHORT SLOTTED HOLE | |
| | SOCIETY for PROTECTIVE COATINGS STRUCTURAL TEE CUT FROM 'S' SECTION | |
| | STANDARD | |
|) | STAGGERED STIFFENER | |
| | STEEL STAIR | $\begin{array}{c} 7 & 7 & 7 & 7 & 7 & 7 & 7 & 7 & 7 & 7 $ |
| СТ | STRUCTURAL | ······ |
| | SHEAR WALL SYMMETRICAL | |
| | | |
| | TOP AND BOTTOM TONGUE AND GROOVE | |
|) | TOP CHORD EXTENSION TEMPERATURE, TEMPERED, TEMPORARY | |
| | TENSION | |
|) | THICK, THICKNESS THREAD, THREADED | S |
| | TOP OF BEAM TOP OF CONCRETE | |
| V | TOP OF CONCRETE WALL | S |
| | TOP OF FOOTING TOP OF PARAPET | |
| AB | TOP OF STEEL TOP OF SLAB | + EL.: |
| | TOP OF WALL | |
| | TOPPING THREADED ROD IN ADHESIVE ANCHOR | |
| S | TRANSVERSE THICKENED SLAB FOOTING | |
| | TYPICAL | |
| | UNIFORM BUILDING CODE | ľ |
| ; | UPSET END FLANGE REBAR COUPLER | ζ |
| | UNLESS NOTED OTHERWISE ULTRASONIC TEST | |
| · V | | |
| , V | VERTICAL VERIFY IN FIELD | Mili |
| | VERTICAL MOVEMENT SYSTEM VENEER | Color No |
| | | |
| | WIDTH or WIDE FLANGE WITH | |
| - | | |
| J | WASHINGTON ASSOCIATION of BUILDING OFFICIALS | L |
| | WALL CONTROL JOINT WOOD | |
| | WIDE FLANGE WORKING POINT | |
| | WELDING PROCEDURES SPECIFICATIONS | |
| | WELD STUD WEIGHT or STRUCTURAL TEE CUT FROM 'W' | |
| | SECTION WELDED WIRE FABRIC | |
| | | |
| R IR | EXTRA STRONG DOUBLE EXTRA STRONG | (|
| | | |

LEGEND

| | OEIID |
|--|---|
| <u>cc</u> | D LUMNS HSS Column in Plan |
| 0 | Pipe Column in Plan |
| I | Wide Flange Column in Plan |
| ME | MBERS |
|)LH 280/140 | Open Web Steel Designation |
| 2 | [Depth] [Type] [Total Load]/[Live Load] (PLF) (PLF) |
| " I-Joist@24 110/60 | Wood I-Joist Designation [Depth] I-Joist @ Spacing [Total Load (PLF)]/[Live Load (PLF)] |
| W12x26 [#] | [Beam Reaction] Beam Size [Beam Reacti |
| C= N= | Camber & Number of Weld Studs Designa |
| CON | IECTIONS |
| —H—2 | Denotes Shear Connection |
| -4⊢▶2 | Denotes Cantilever Moment Connection (Size of Cantilever Beam matches the size |
| └ Cantilever | the Backspan Beam, UNO) |
| ◆H ◆ ₹ | Denotes Thermal Break Connection |
| | Denotes Braced Frame |
| At Bottom | Bottom Flange Bracing |
| Flange | /ALL S |
| <u>N</u> | IALLS Existing Concrete in Plan or Section |
| | Cast-in-Place Concrete in Plan or Section |
| | Precast Concrete in Plan or Section |
| | CMU in Plan or Section |
| | Structural Stud Wall in Plan |
| | Full Height Wall below |
| NLB | Full Height Non-Load Bearing Wall below |
| <u></u> | Lintel Beam in Plan |
| <u>S</u> | SOILS Natural Grade/Earth |
| | |
| | Structural Fill |
| $\begin{array}{c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ &$ | Compacted Gravel |
| | Capillary Break |
| LIN | EWORK |
| | Matchline |
| | Floor Control Joint (FCJ) |
| s s <u>annotat</u> | ION/SYMBOLS |
| | Stepped Footing in Plan |
| S 100'-0" T.O.F. | Top of Footing Elevation |
| L. = 100'-0" | Top of Slab Elevation |
| | Depth of Depression |
| | Slab Depression |
| | - Extent of Depression in Plan |
| | Direction of Framing Designation |
| | Extent of Framing Designation |
| × | Hold Down |
| In Mart | Column Size Designation |
| 40 ^{fe} | |
| \sim | CMU Designation |
| | Structural Stud Shear Wall Designation Column/Wall Footing Designation |
| | Timber Connector Designation |
| DEFEDEN | |
| KEFEKEN | <u>CE SYMBOLS</u> Direction of View |
| | Detail/Section Number Designation |
| | - Sheet Natailed on Decignation |
| | Sheet Detailed on Designation Detail/Section Number Designation |
| S101 | Sheet Detailed on Designation |
| $\langle A \rangle$ | Reference for Portion of Details |
| | |

PRCNC20221036 STRUCTURAL REVISION

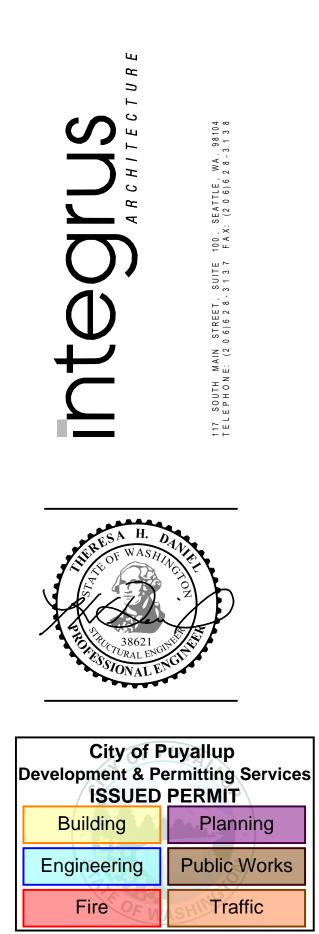
Load] (PLF)

am Reaction] ds Designation

nnection es the size of

tion or Section

all below

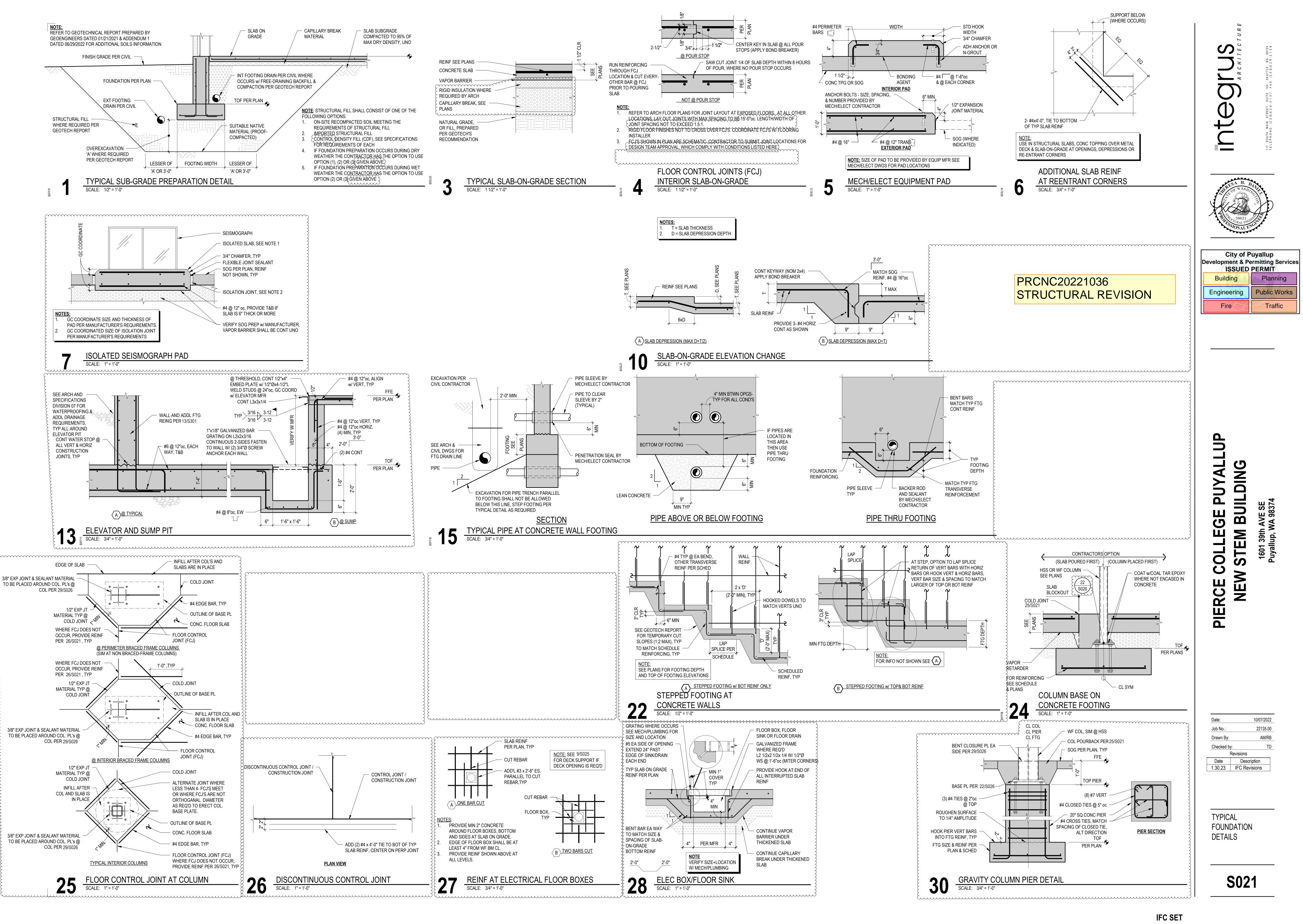


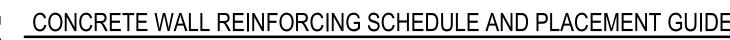
PIERCE COLLEGE PUYALLUP NEW STEM BUILDING 1601 39th AVE SE Puyallup, WA 98374

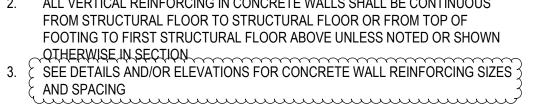
10/07/2022 22135.00 Job No.: Drawn By: AM Checked by: TD
 Date
 Description

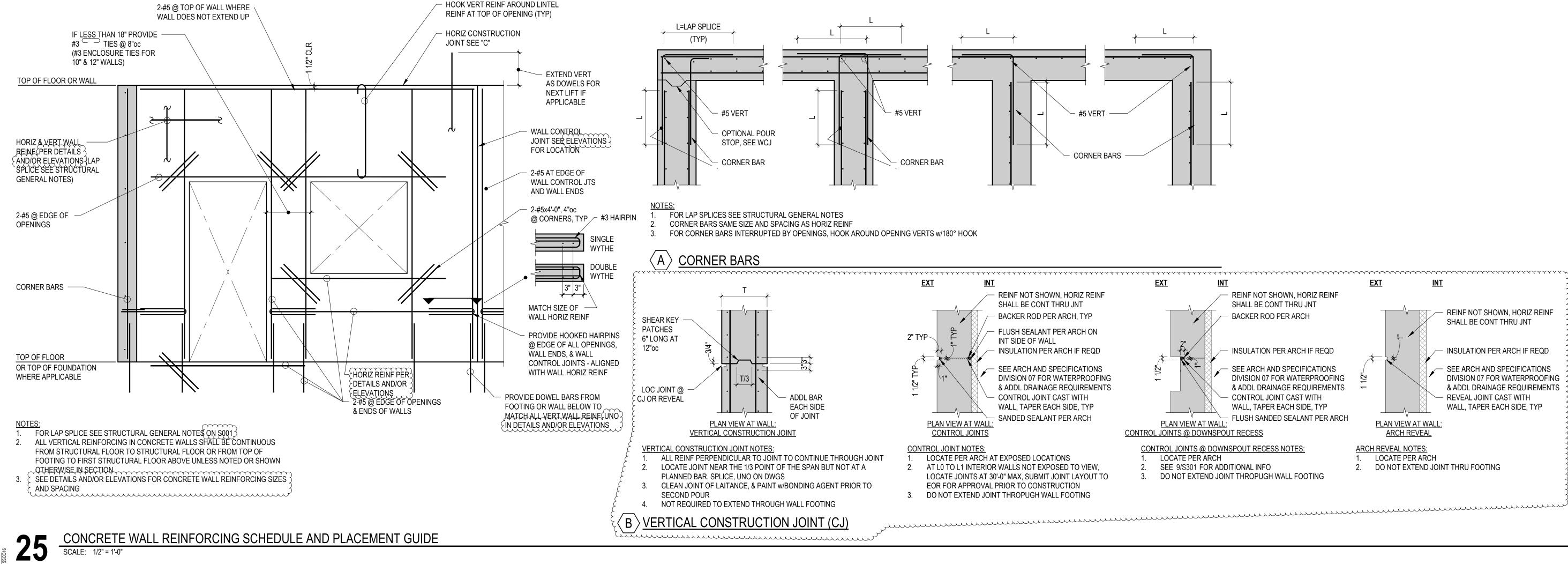
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 IFC Revisions

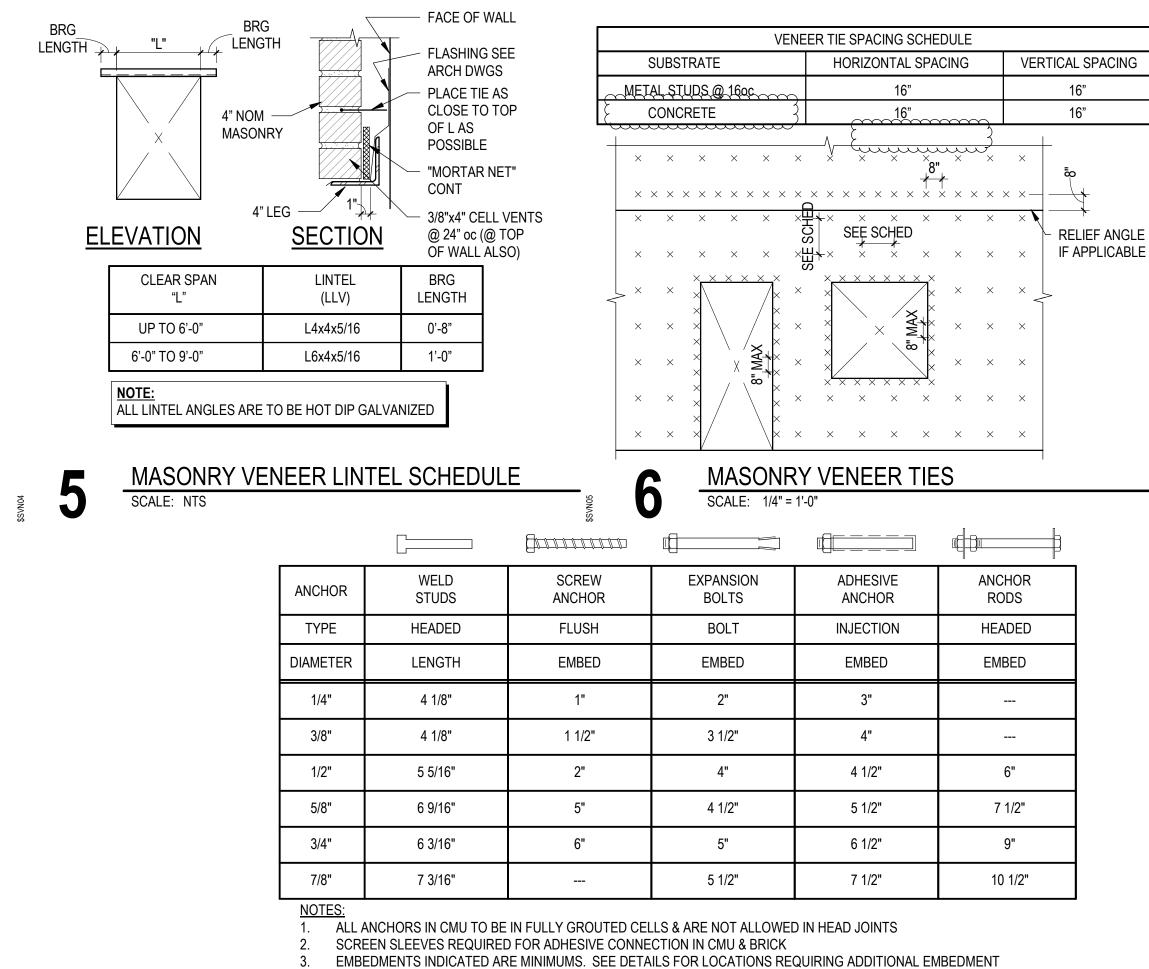
STRUCTURAL GENERAL NOTES





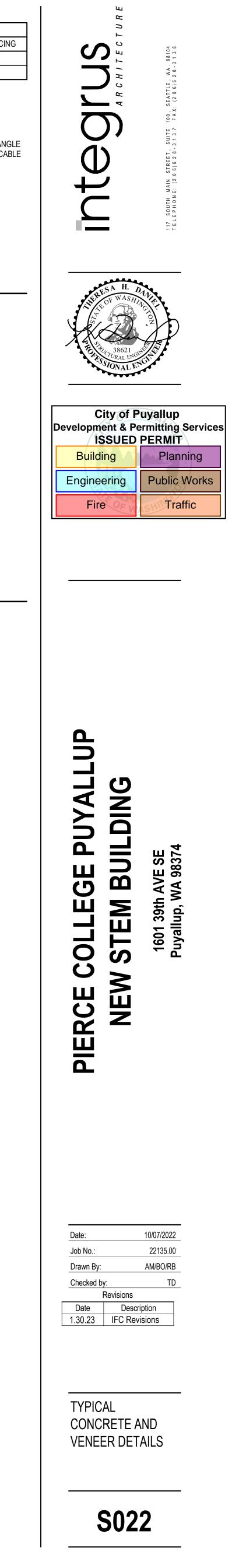


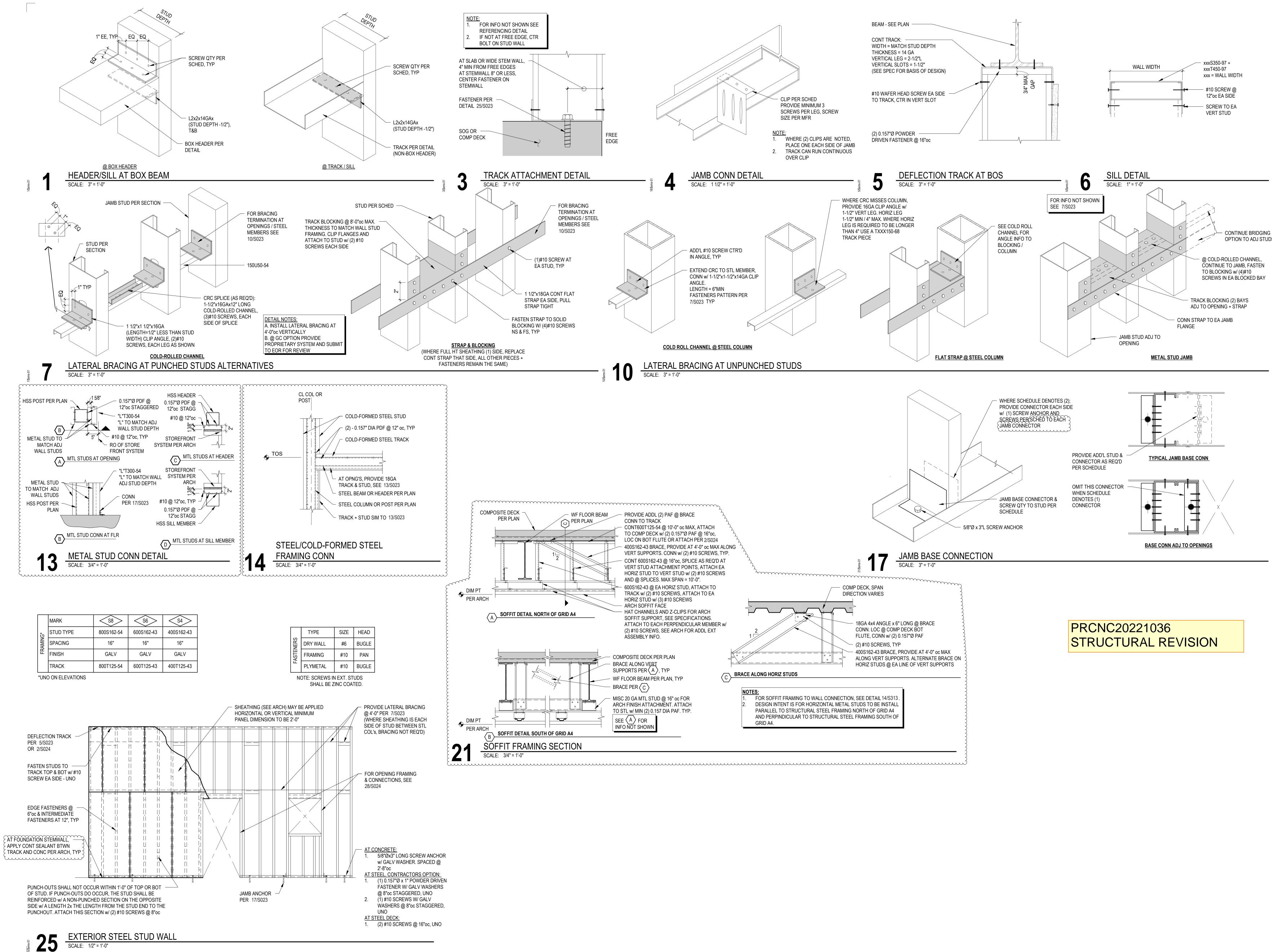




STANDARD ANCHOR EMBEDMENT SCALE: 3/4" = 1'-0"

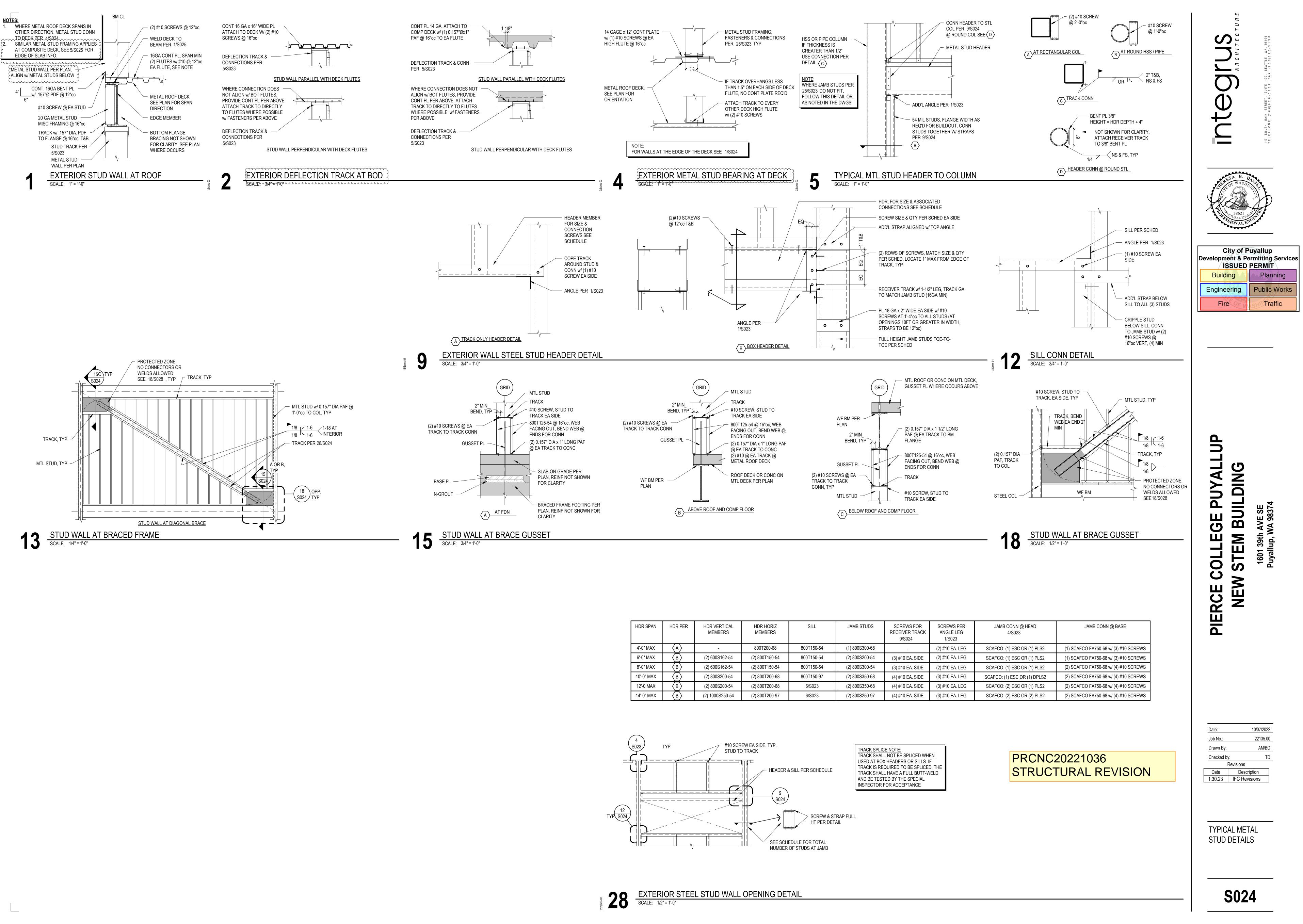
> PRCNC20221036 STRUCTURAL REVISION



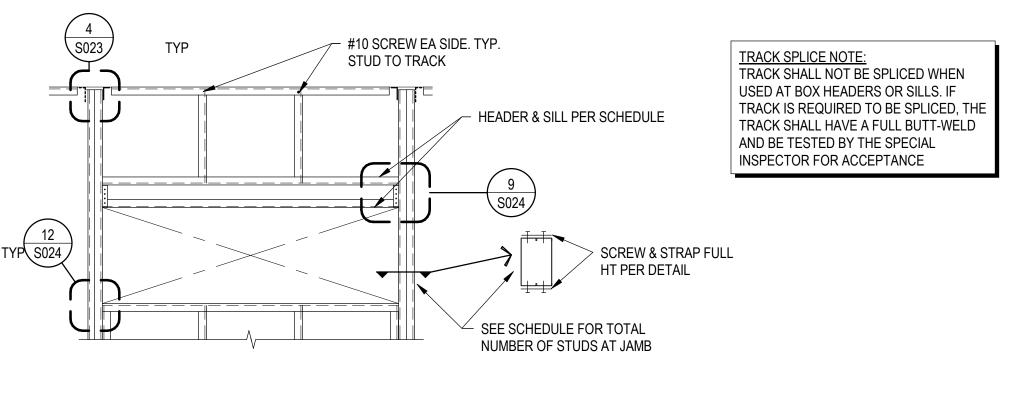




OPTION TO ADJ STUDS



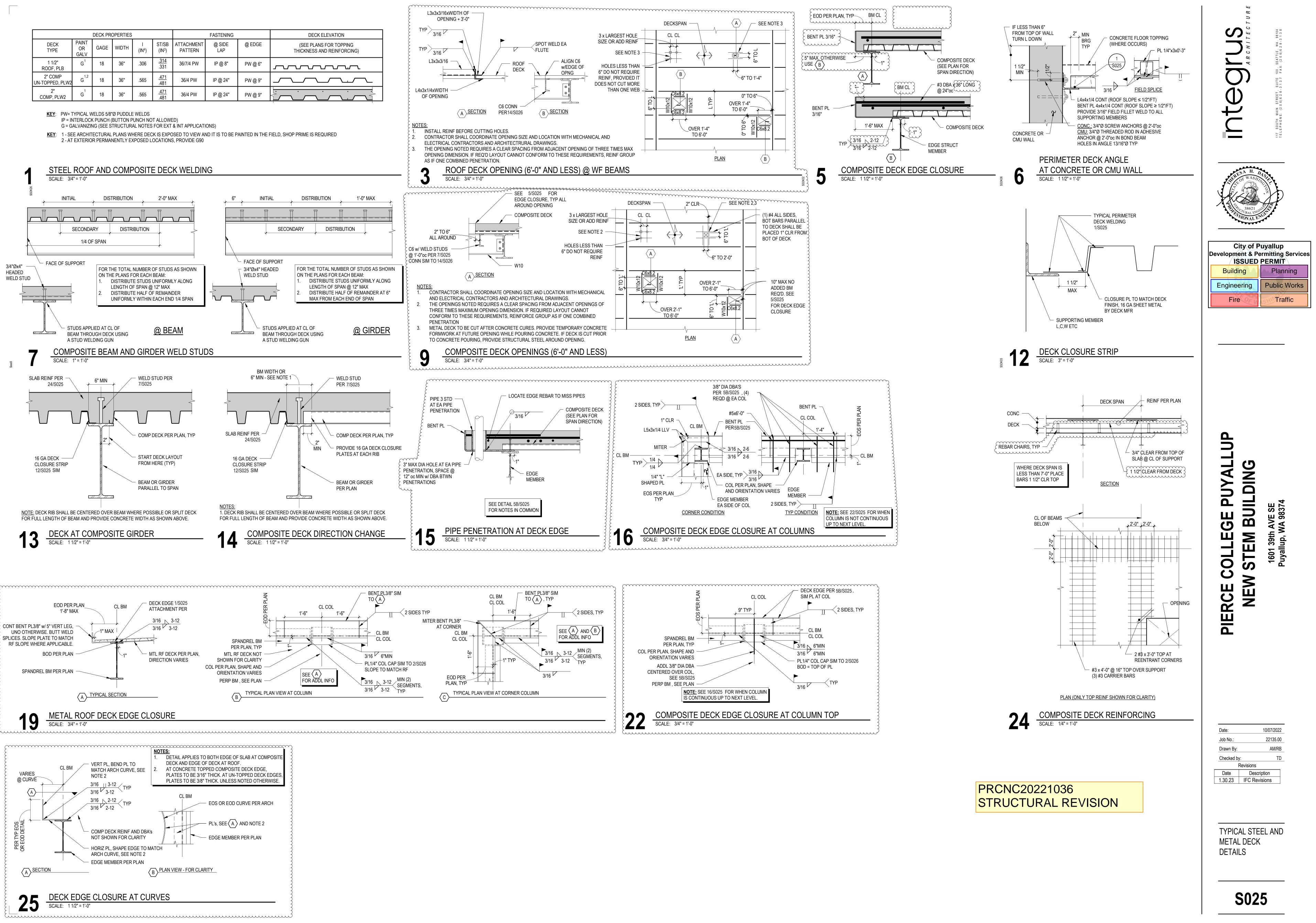
| HDR SPAN | HDR PER | HDR VERTICAL MEMBERS | HDR HORIZ MEMBERS | SILL | JAMB STUDS | SCREWS FOR RECEIVER TRACK 9/S024 | SCREWS PER ANGLE LEG 1/S023 | JAMB CONN @ HEAD 4/S023 | JAMB CONN @ BASE |
|------------|---------|-------------------------|----------------------|------------|-----------------|--|-----------------------------------|------------------------------|---------------------------------------|
| 4'-0" MAX | A | - | 800T200-68 | 800T150-54 | (1) 800S300-68 | - | (2) #10 EA. LEG | SCAFCO: (1) ESC OR (1) PLS2 | (1) SCAFCO FA750-68 w/ (3) #10 SCREWS |
| 6'-0" MAX | B | (2) 600S162-54 | (2) 800T150-54 | 800T150-54 | (2) 800S200-54 | (3) #10 EA. SIDE | (2) #10 EA. LEG | SCAFCO: (1) ESC OR (1) PLS2 | (1) SCAFCO FA750-68 w/ (3) #10 SCREWS |
| 8'-0" MAX | B | (2) 600S162-54 | (2) 800T150-54 | 800T150-54 | (2) 800S300-54 | (3) #10 EA. SIDE | (2) #10 EA. LEG | SCAFCO: (1) ESC OR (1) PLS2 | (2) SCAFCO FA750-68 w/ (4) #10 SCREWS |
| 10'-0" MAX | B | (2) 800S200-54 | (2) 800T200-68 | 800T150-97 | (2) 800\$350-68 | (4) #10 EA. SIDE | (3) #10 EA. LEG | SCAFCO: (1) ESC OR (1) DPLS2 | (2) SCAFCO FA750-68 w/ (4) #10 SCREWS |
| 12'-0 MAX | B | (2) 800S200-54 | (2) 800T200-68 | 6/S023 | (2) 800\$350-68 | (4) #10 EA. SIDE | (3) #10 EA. LEG | SCAFCO: (2) ESC OR (1) PLS2 | (2) SCAFCO FA750-68 w/ (4) #10 SCREWS |
| 14'-0" MAX | B | (2) 1000S250-54 | (2) 800T200-97 | 6/S023 | (2) 800S250-97 | (4) #10 EA. SIDE | (3) #10 EA. LEG | SCAFCO: (2) ESC OR (2) PLS2 | (2) SCAFCO FA750-68 w/ (4) #10 SCREWS |

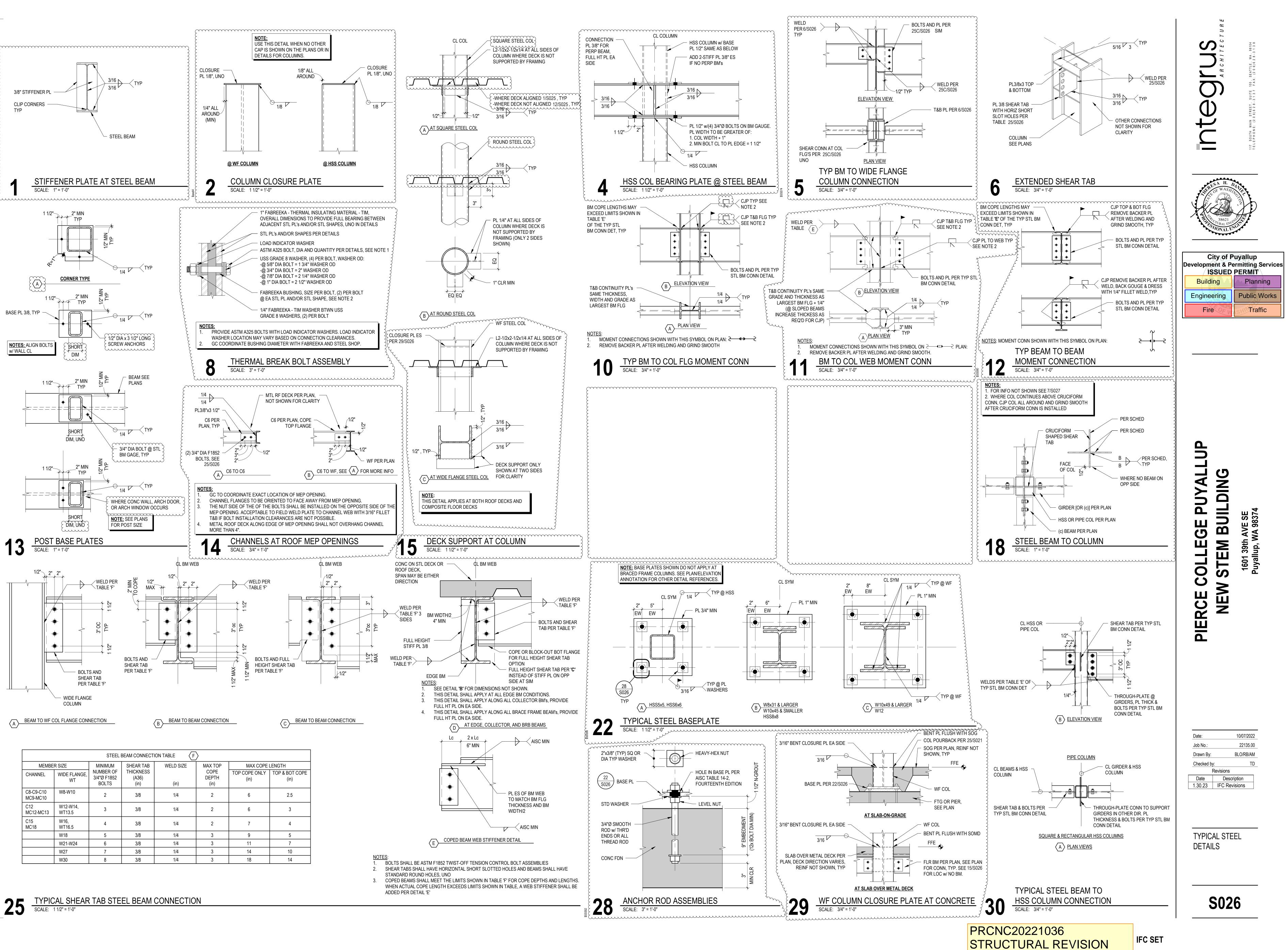




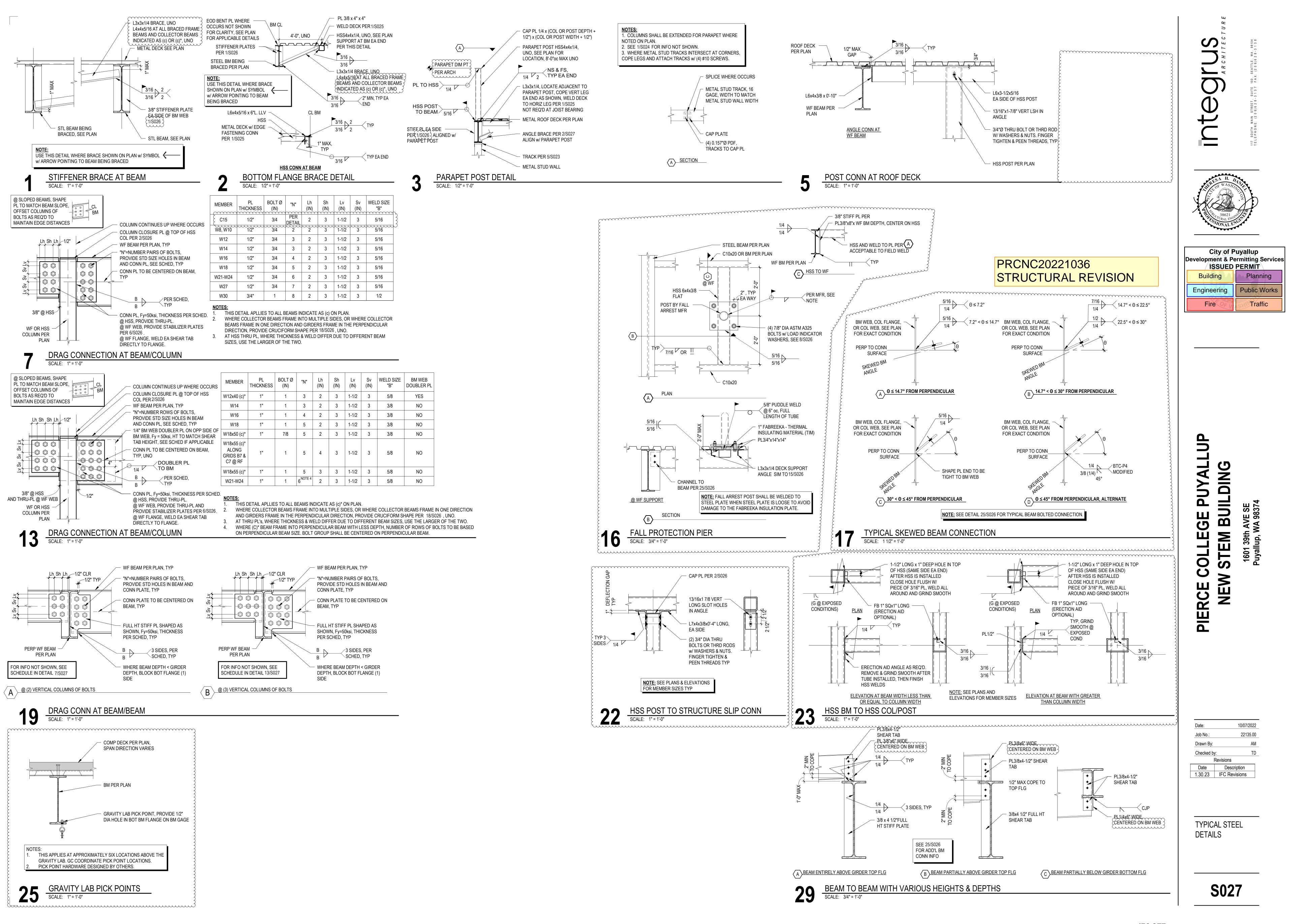


| | | DECK PR | OPERTIES | | | | FASTENING | DECK ELEVATION | |
|----------------------------|------------------|---------|----------|------|-----------------------------|-----------------------|-----------|----------------|---|
| DECK TYPE | | | | | ST/SB (IN ³) | ATTACHMENT PATTERN | | | (SEE PLANS FOR TOPPI THICKNESS AND REINFOR |
| 1 1/2" ROOF, PLB | G^1 | 18 | 36" | .306 | <u>.314</u> .331 | 36/7/4 PW | IP @ 8" | PW @ 6" | |
| 2" COMP UN-TOPPED, PLW2 | G ^{1,2} | 18 | 36" | .565 | <u>.471</u> .481 | 36/4 PW | IP @ 24" | PW @ 9" | |
| 2" COMP, PLW2 | G ¹ | 18 | 36" | .565 | <u>.471</u> .481 | 36/4 PW | IP @ 24" | PW @ 9" | |



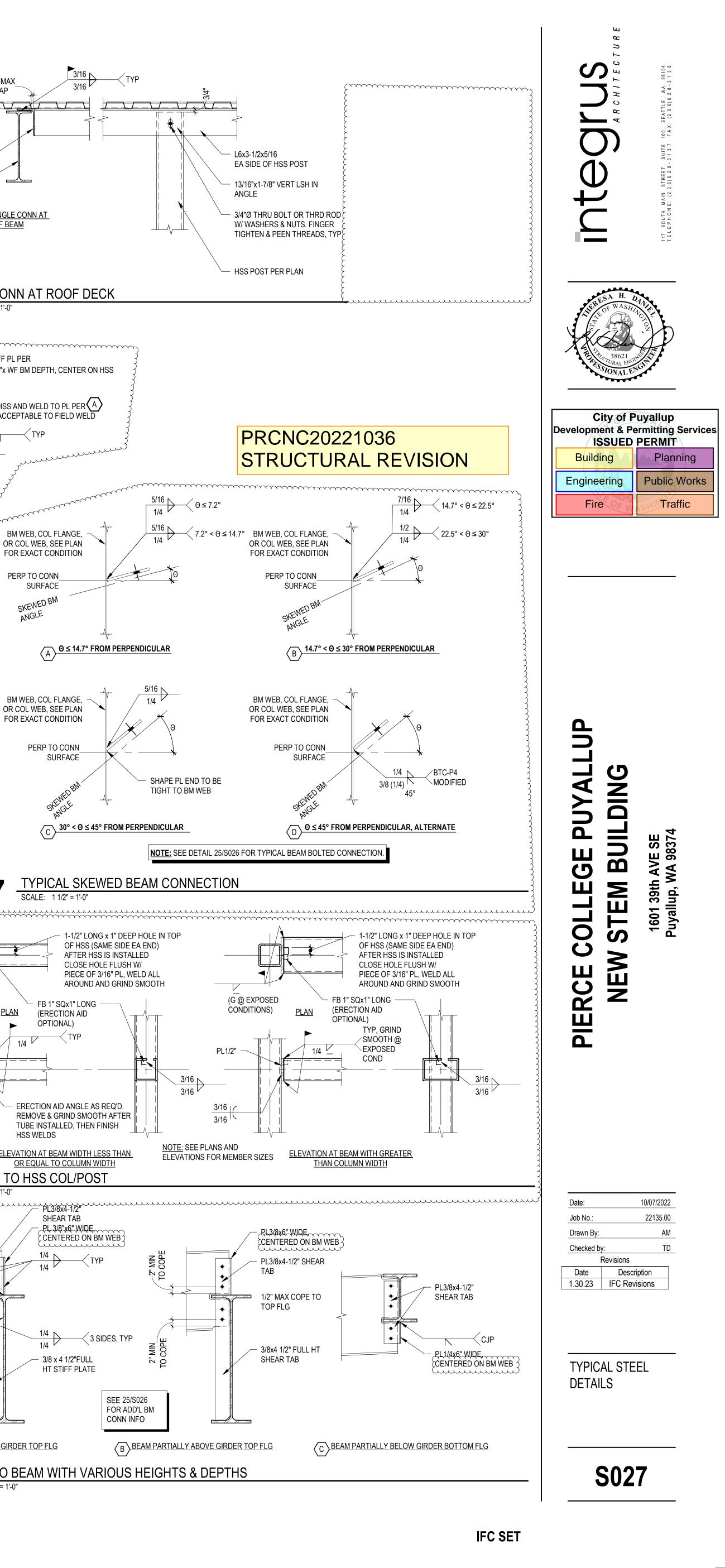


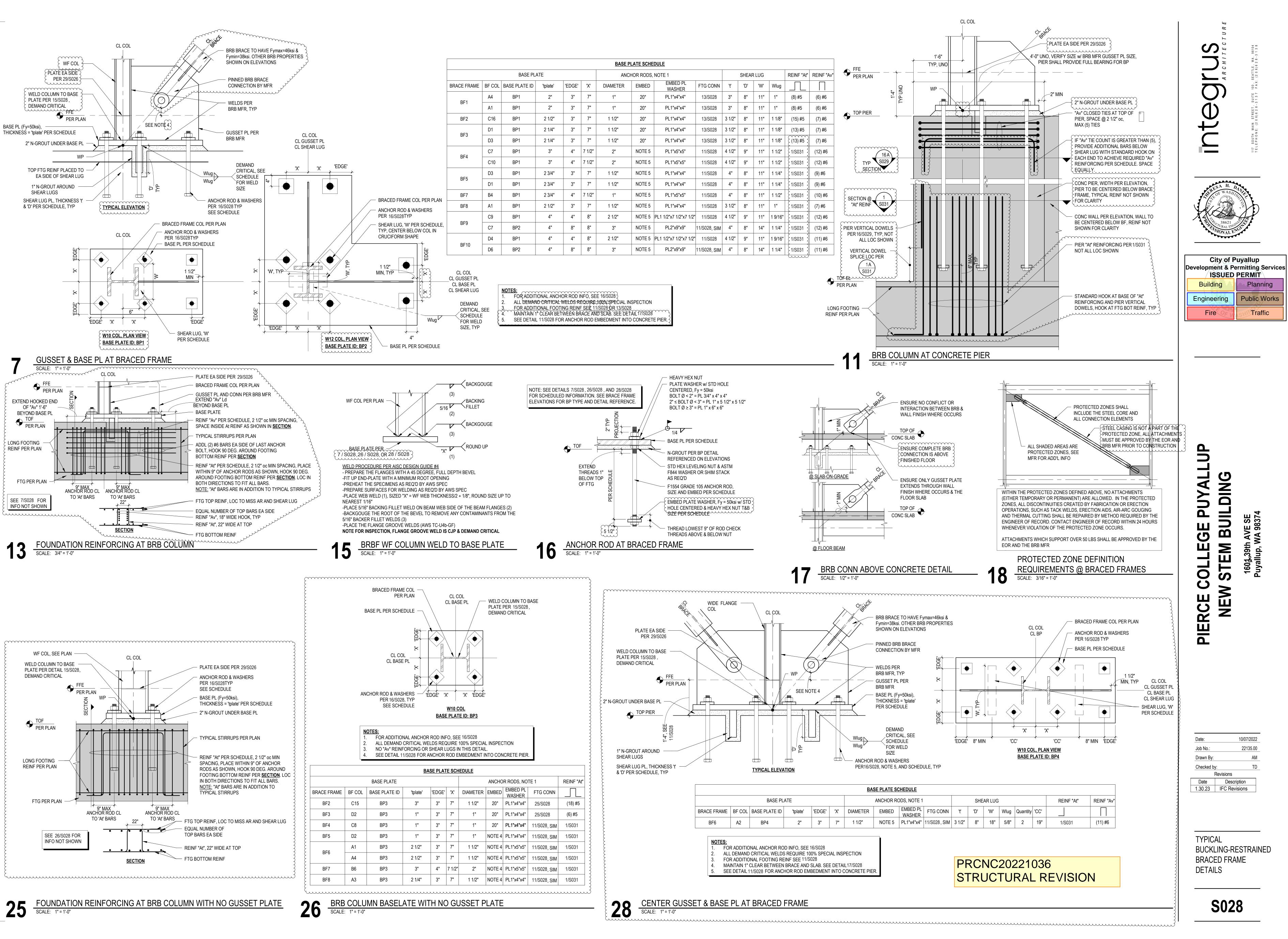
| | | STEEL I | BEAM CONNECT | ION TABLE F | \rangle | | |
|-----------------------|--------------------|-----------------------------------|----------------------------|-------------|-----------------------|-----------------------|------------------------|
| MEMBE | R SIZE | MINIMUM | SHEAR TAB | WELD SIZE | MAX TOP | MAX COPE | LENGTH |
| CHANNEL | WIDE FLANGE, WT | NUMBER OF 3/4"Ø F1852 BOLTS | THICKNESS (A36) (in) | (in) | COPE DEPTH (in) | TOP COPE ONLY (in) | TOP & BOT COPE (in) |
| C8-C9-C10 MC9-MC10 | W8-W10 | 2 | 3/8 | 1/4 | 2 | 6 | 2.5 |
| C12 MC12-MC13 | W12-W14, WT13.5 | 3 | 3/8 | 1/4 | 2 | 6 | 3 |
| C15 MC18 | W16, WT16.5 | 4 | 3/8 | 1/4 | 2 | 7 | 4 |
| | W18 | 5 | 3/8 | 1/4 | 3 | 9 | 5 |
| | W21-W24 | 6 | 3/8 | 1/4 | 3 | 11 | 7 |
| | W27 | 7 | 3/8 | 1/4 | 3 | 14 | 10 |
| | W30 | 8 | 3/8 | 1/4 | 3 | 18 | 14 |

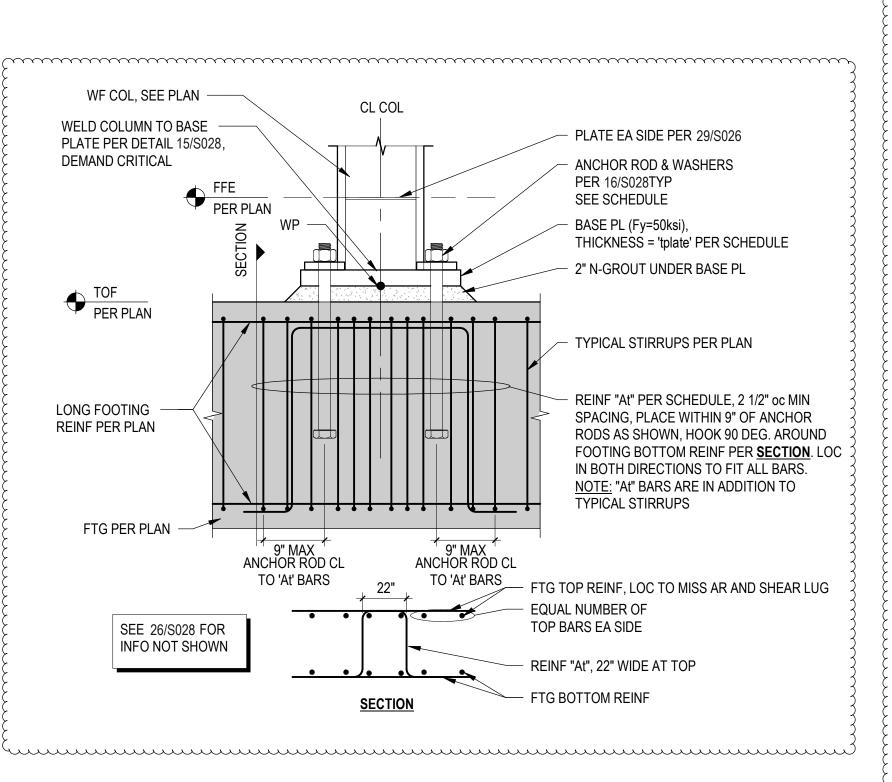


| Lv (IN) | Sv (IN) | WELD SIZE "B" |
|------------|------------|------------------|
| 1-1/2 | 3 | 5/16 |
| 1-1/2 | 3 | 5/16 |
| 1-1/2 | 3 | 5/16 |
| 1-1/2 | 3 | 5/16 |
| 1-1/2 | 3 | 5/16 |
| 1-1/2 | 3 | 5/16 |
| 1-1/2 | 3 | 5/16 |
| 1-1/2 | 3 | 5/16 |
| 1-1/2 | 3 | 1/2 |

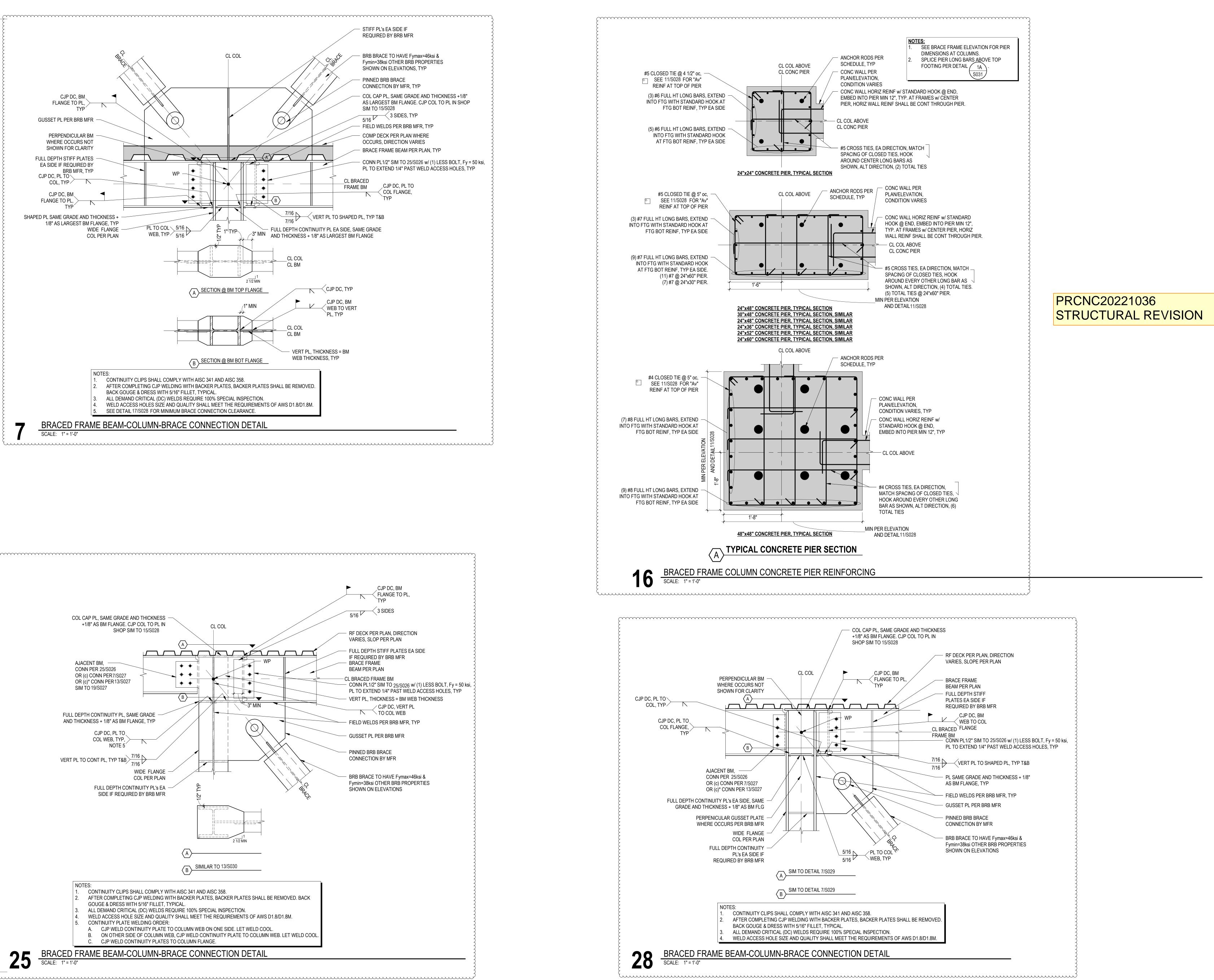
| Sh IN) | Lv (IN) | Sv (IN) | WELD SIZE "B" | BM WEB DOUBLER PL |
|-----------|------------|------------|------------------|----------------------|
| 3 | 1-1/2 | 3 | 5/8 | YES |
| 3 | 1-1/2 | 3 | 3/8 | NO |
| 3 | 1-1/2 | 3 | 3/8 | NO |
| 3 | 1-1/2 | 3 | 3/8 | NO |
| 3 | 1-1/2 | 3 | 3/8 | NO |
| 3 | 1-1/2 | 3 | 5/8 | NO |
| 3 | 1-1/2 | 3 | 5/8 | NO |
| 3 | 1-1/2 | 3 | 5/8 | NO |
| | | | | |

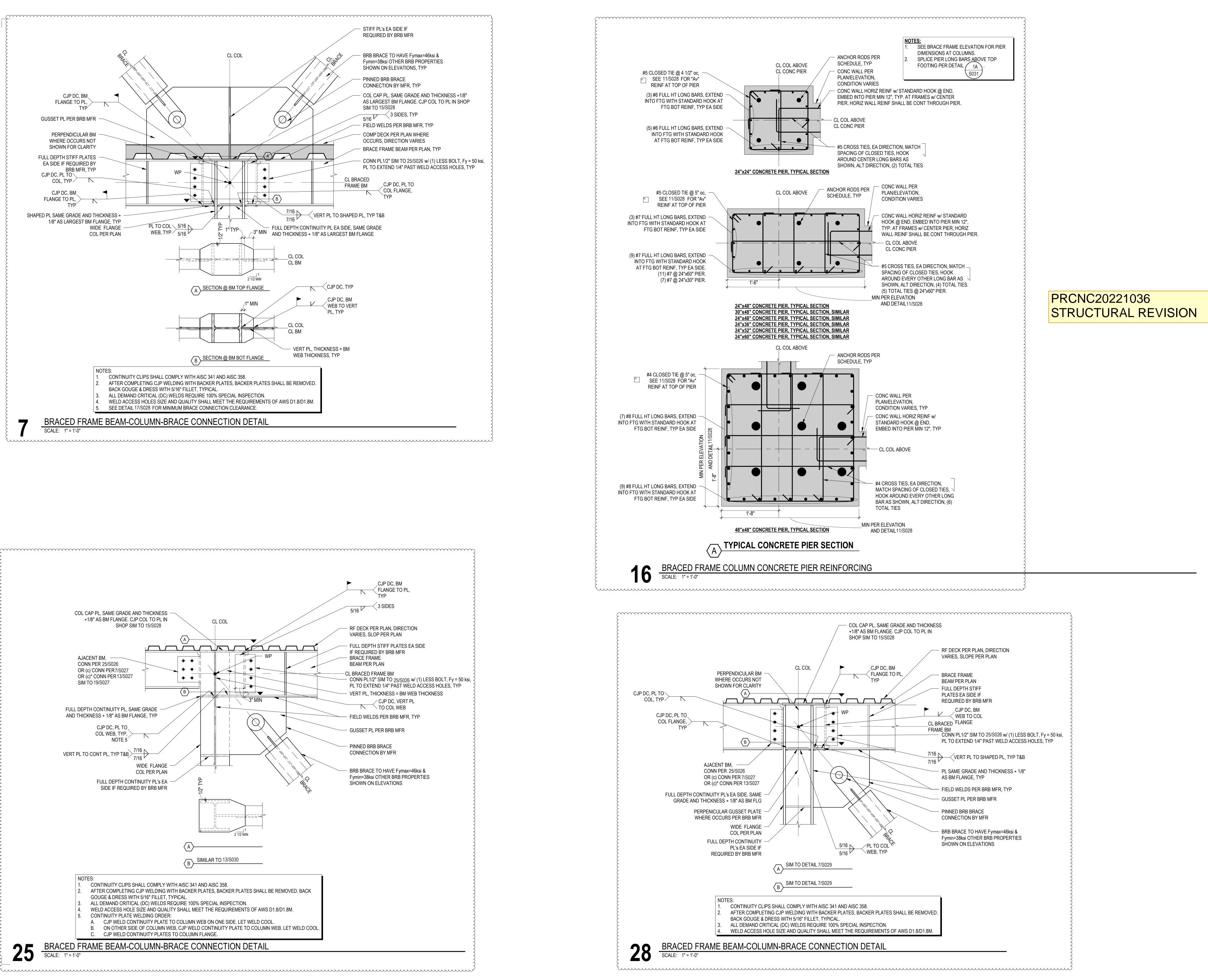


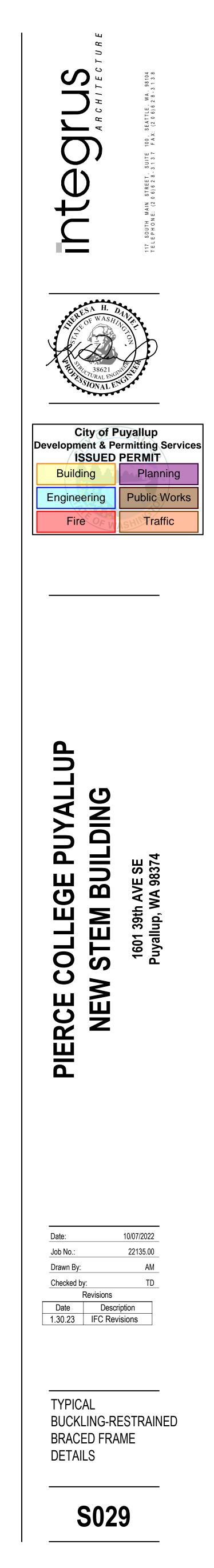


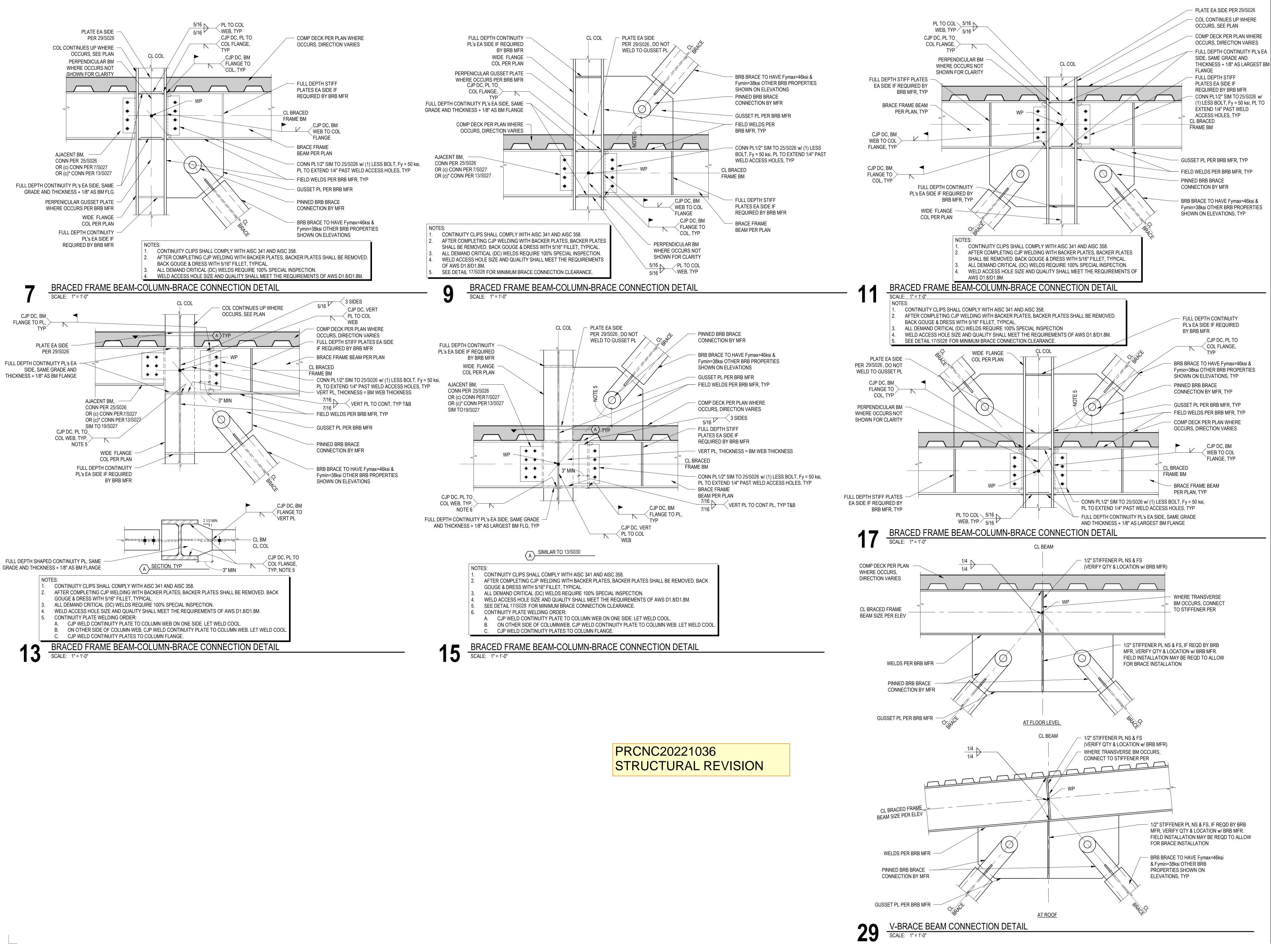


| | | | | | BA | <u>SE PLATE SO</u> | CHEDULE | | | | | | | | | |
|------------|---------------|----------|--------|---------------------|----------|--------------------|--------------------|--------------|--------|-----|-----|------|------------|------------|--------|---------|
| BASE PLATE | | | | ANCHOR RODS, NOTE 1 | | | | SHEAR LUG | | | | | REINF "At" | REINF "Av" | | |
| BF COL | BASE PLATE ID | 'tplate' | 'EDGE' | 'X' | DIAMETER | EMBED | EMBED PL WASHER | FTG CONN | 'ť' | 'D' | 'W' | Wlug | Quantity | 'CC' | | |
| A2 | BP4 | 2" | 3" | 7" | 1 1/2" | NOTE 5 | PL1"x4"x4" | 11/S028, SIM | 3 1/2" | 8" | 18" | 5/8" | 2 | 19" | 1/S031 | (11) #6 |
| | | | | | | | | | | | | | | | | |

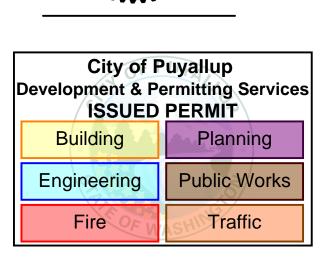








+



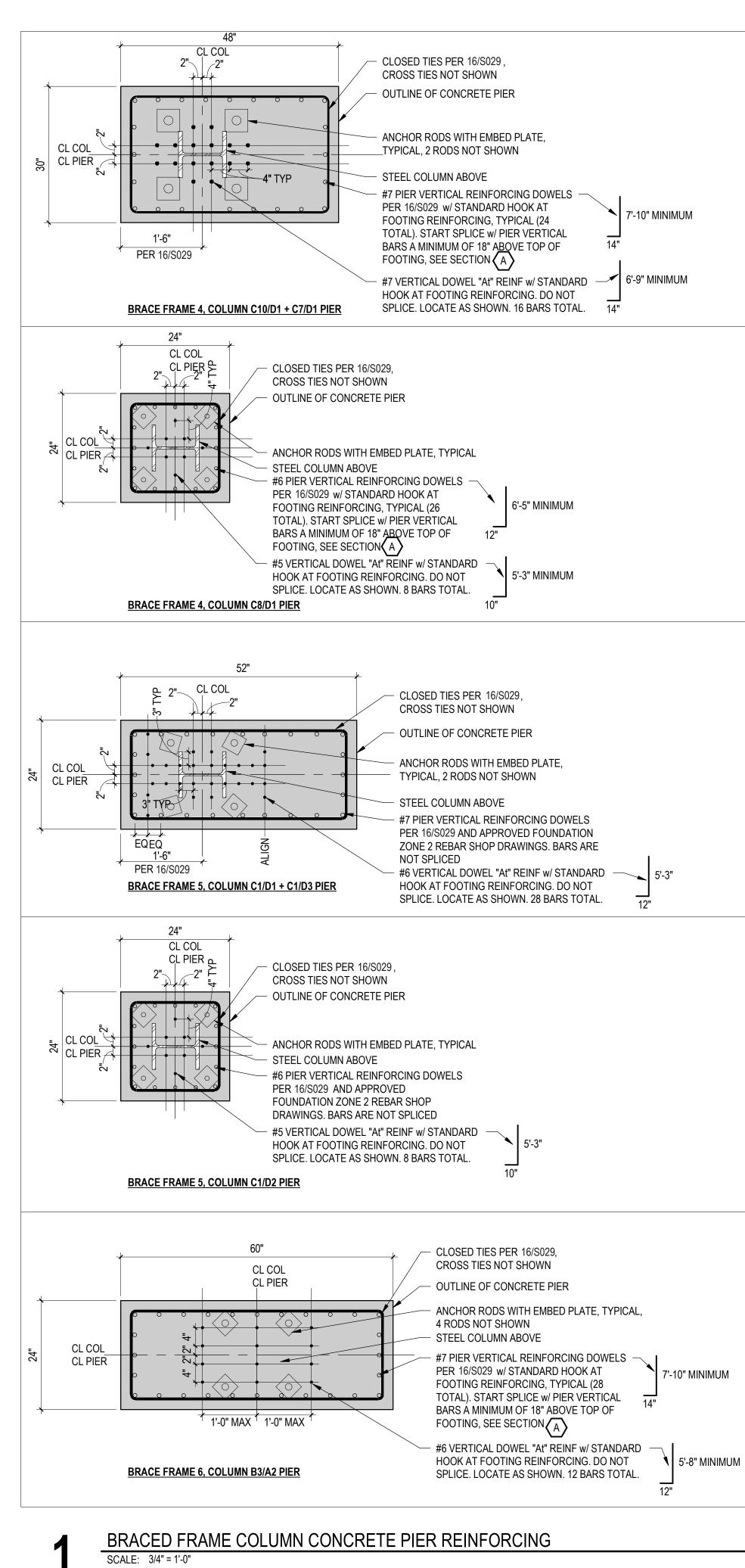
C 4 DIN \succ Δ BUIL SE 374 Ш C STEM **~** 7 09 09 Ο C 8 Ш Z C PIER

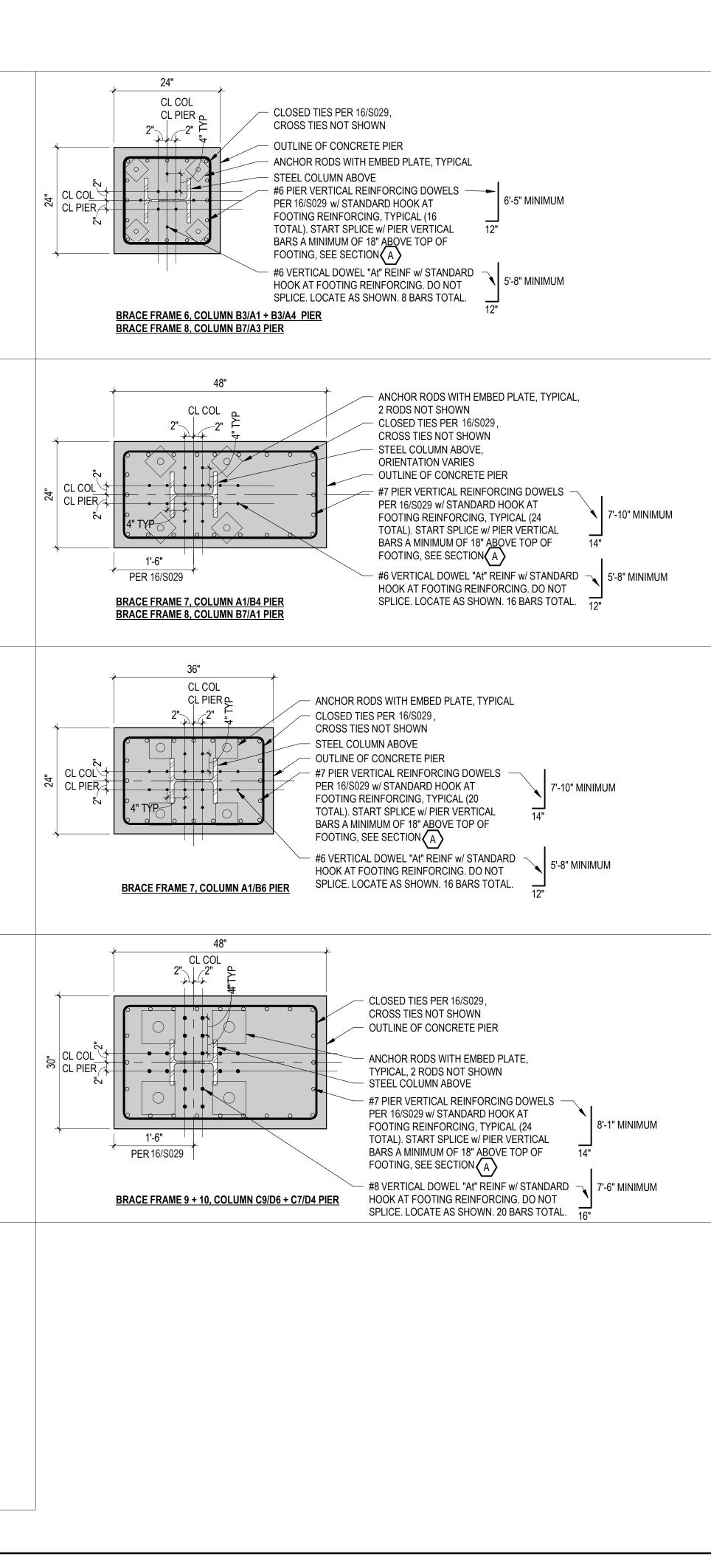
10/07/2022 22135.00 Job No.: Drawn By Checked by: Revisions Date Description 1.30.23 IFC Revisions

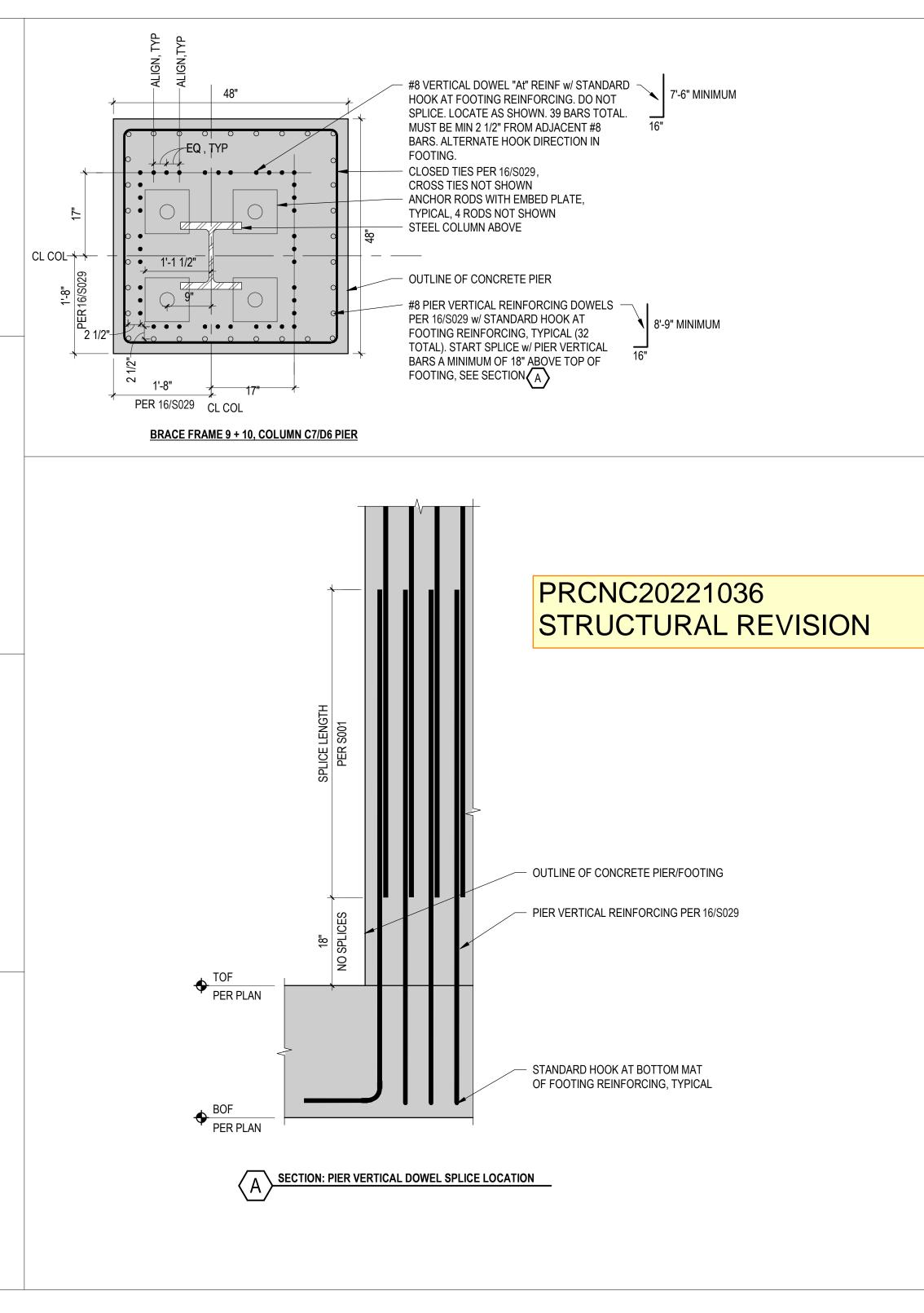
TYPICAL **BUCKLING-RESTRAINED** BRACED FRAME DETAILS



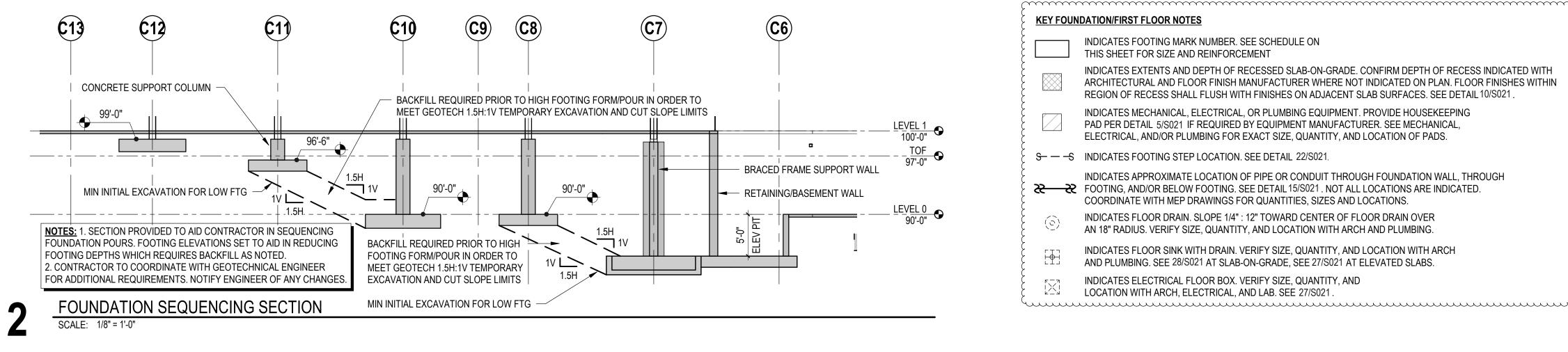


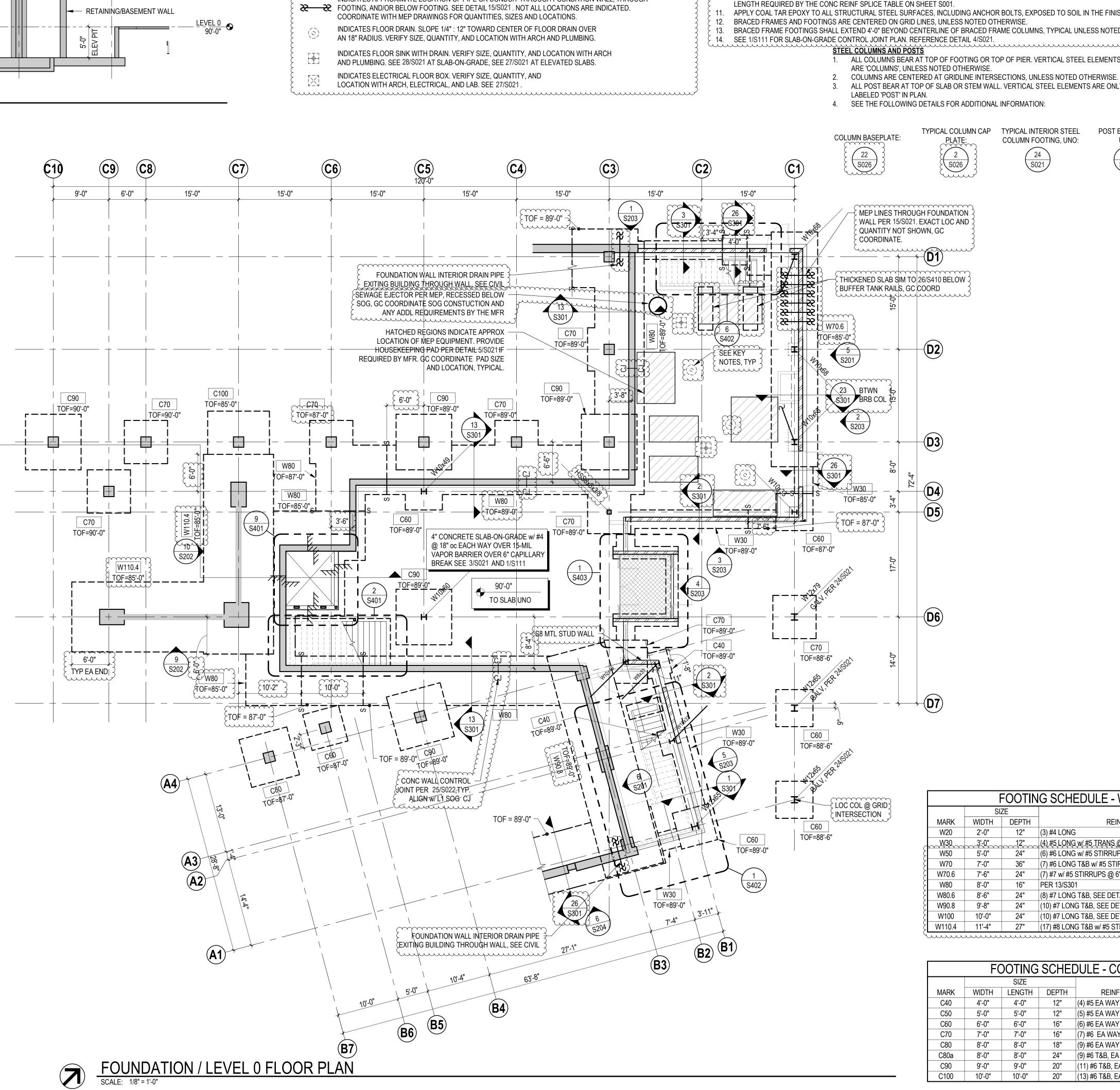












PRCNC20221036 STRUCTURAL REVISION

| (9) #6 T&B, EA WAY |
|---------------------|
| (11) #6 T&B, EA WAY |
| (13) #6 T&B, EA WAY |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |

FOOTING SCHEDULE - WALL

24" (7) #7 w/ #5 STIRRUPS @ 6" oc

FOOTING SCHEDULE - COLUMN

12" (4) #5 EA WAY

12" (5) #5 EA WAY

16" (6) #6 EA WAY

PER 13/S301

_12"___(4) #5 LONG w/ #5 TRANS @ 12" oc_____ 24" (6) #6 LONG w/ #5 STIRRUPS @ 12" oc

36" (7) #6 LONG T&B w/ #5 STIRRUPS @ 6" oc

(17) #8 LONG T&B w/ #5 STIRRUPS @ 6" o

12" (3) #4 LONG

LENGTH

4'-0"

5'-0"

6'-0"

7'-0" 7'-0" 16" (7) #6 EA WAY

REINFORCING

SIZE

WIDTH DEPTH

2'-0"

5'-0"

7'-0"

7'-6"

10'-0"

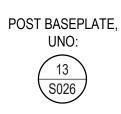
11'-4"

4'-0"

5'-0"

6'-0"

| IONAL | _ INFORMATION: |
|-------|--|
| CAP | TYPICAL INTERIOR STEEL COLUMN FOOTING, UNO: |



FOUNDATION/FIRST FLOOR PLAN NOTES REFER TO SHEETS S001, S002 AND S003 FOR GENERAL STRUCTURAL AND SPECIAL INSPECTION NOTES

REFER TO SHEETS S021 THROUGH S030 FOR TYPICAL DETAILS PROJECT ELEVATION 100'-0" = DATUM ELEVATION 534.0' PER CIVIL DRAWINGS.

VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS

REFER TO DETAILS 3/S021 AND EARTHWORK SPECIFICATION FOR SOIL PREPARATION AT SLABS-ON-GRADE REFER TO DETAIL 10/S021 FOR RECESSED SLAB-ON-GRADE. FLOOR FINISHES WITHIN REGION OF RECESS SHALL FLUSH WITH FINISHES ON ADJACENT

SLAB SURFACES. REFER TO DETAIL 5/S021 FOR EQUIPMENT PADS. SEE MECH, ELEC, CIVIL FOR PAD QUANTITIES AND LOCATIONS. PAD SIZES TO BE PROVIDED BY

EQUIPMENT MFRS LOCALIZED SLOPE TO DRAIN. PROVIDE MAXIMUM 1/4": 12" SLOPE TO DRAIN WITHIN 18" RADIUS AROUND DRAIN. CONTINUE ALL WALL FOOTING REINFORCING, INCLUDING WALL VERTICAL DOWELS, THROUGH COLUMN FOOTINGS WHEREVER THEY INTERSECT.

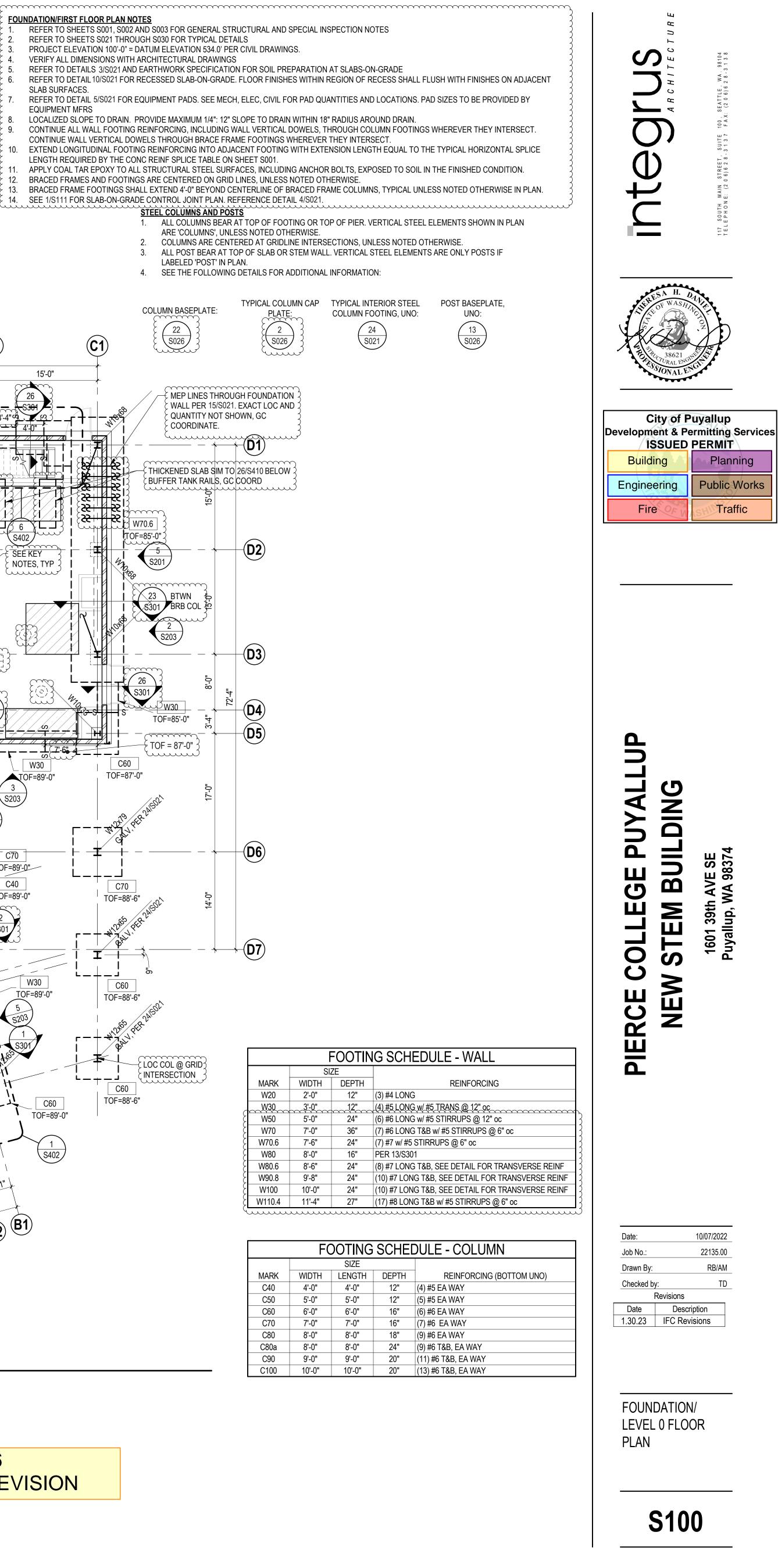
CONTINUE WALL VERTICAL DOWELS THROUGH BRACE FRAME FOOTINGS WHEREVER THEY INTERSECT. 10. EXTEND LONGITUDINAL FOOTING REINFORCING INTO ADJACENT FOOTING WITH EXTENSION LENGTH EQUAL TO THE TYPICAL HORIZONTAL SPLICE LENGTH REQUIRED BY THE CONC REINF SPLICE TABLE ON SHEET S001.

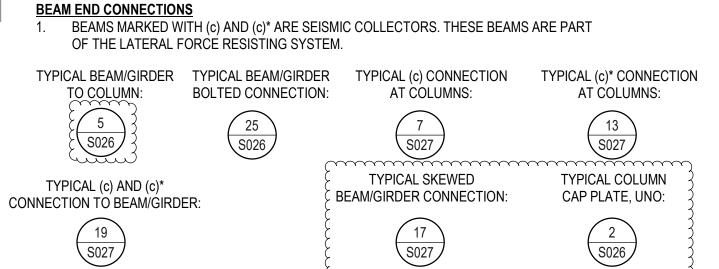
11. APPLY COAL TAR EPOXY TO ALL STRUCTURAL STEEL SURFACES, INCLUDING ANCHOR BOLTS, EXPOSED TO SOIL IN THE FINISHED CONDITION. 12. BRACED FRAMES AND FOOTINGS ARE CENTERED ON GRID LINES, UNLESS NOTED OTHERWISE. 13. BRACED FRAME FOOTINGS SHALL EXTEND 4'-0" BEYOND CENTERLINE OF BRACED FRAME COLUMNS, TYPICAL UNLESS NOTED OTHERWISE IN PLAN.

1. ALL COLUMNS BEAR AT TOP OF FOOTING OR TOP OF PIER. VERTICAL STEEL ELEMENTS SHOWN IN PLAN ARE 'COLUMNS', UNLESS NOTED OTHERWISE. COLUMNS ARE CENTERED AT GRIDLINE INTERSECTIONS, UNLESS NOTED OTHERWISE.

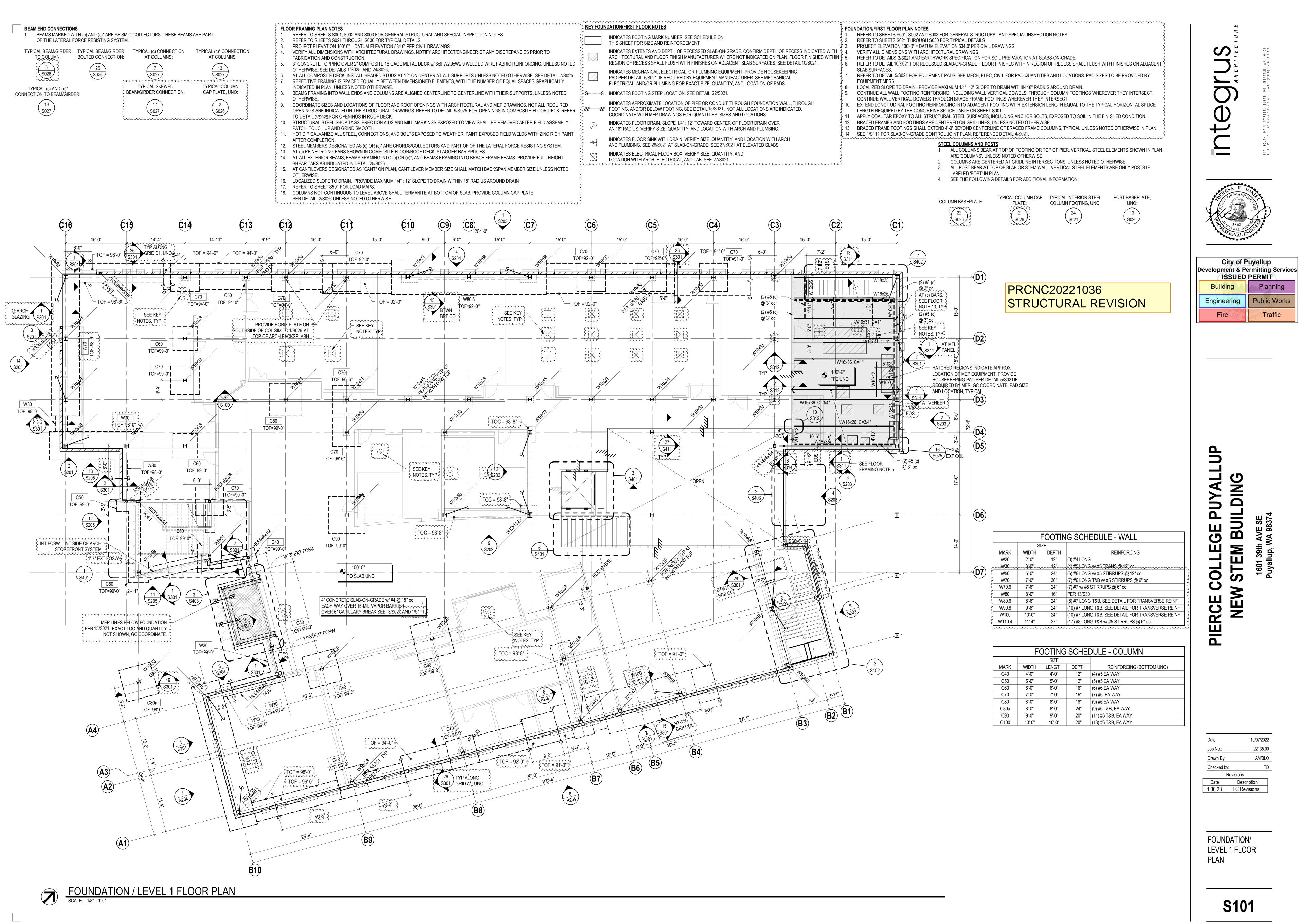
3. ALL POST BEAR AT TOP OF SLAB OR STEM WALL. VERTICAL STEEL ELEMENTS ARE ONLY POSTS IF

4. SEE THE FOLLOWING DETAILS FOR ADDITIC



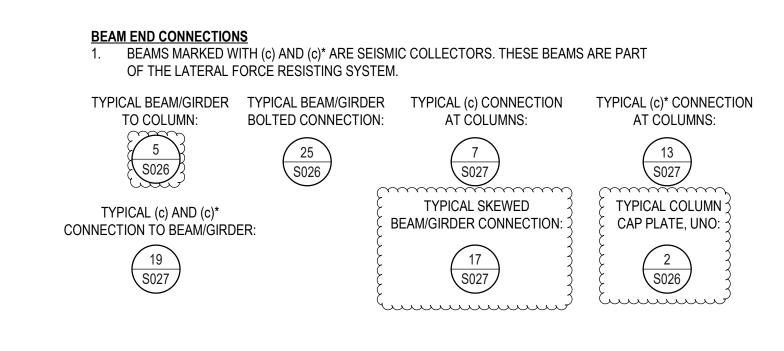


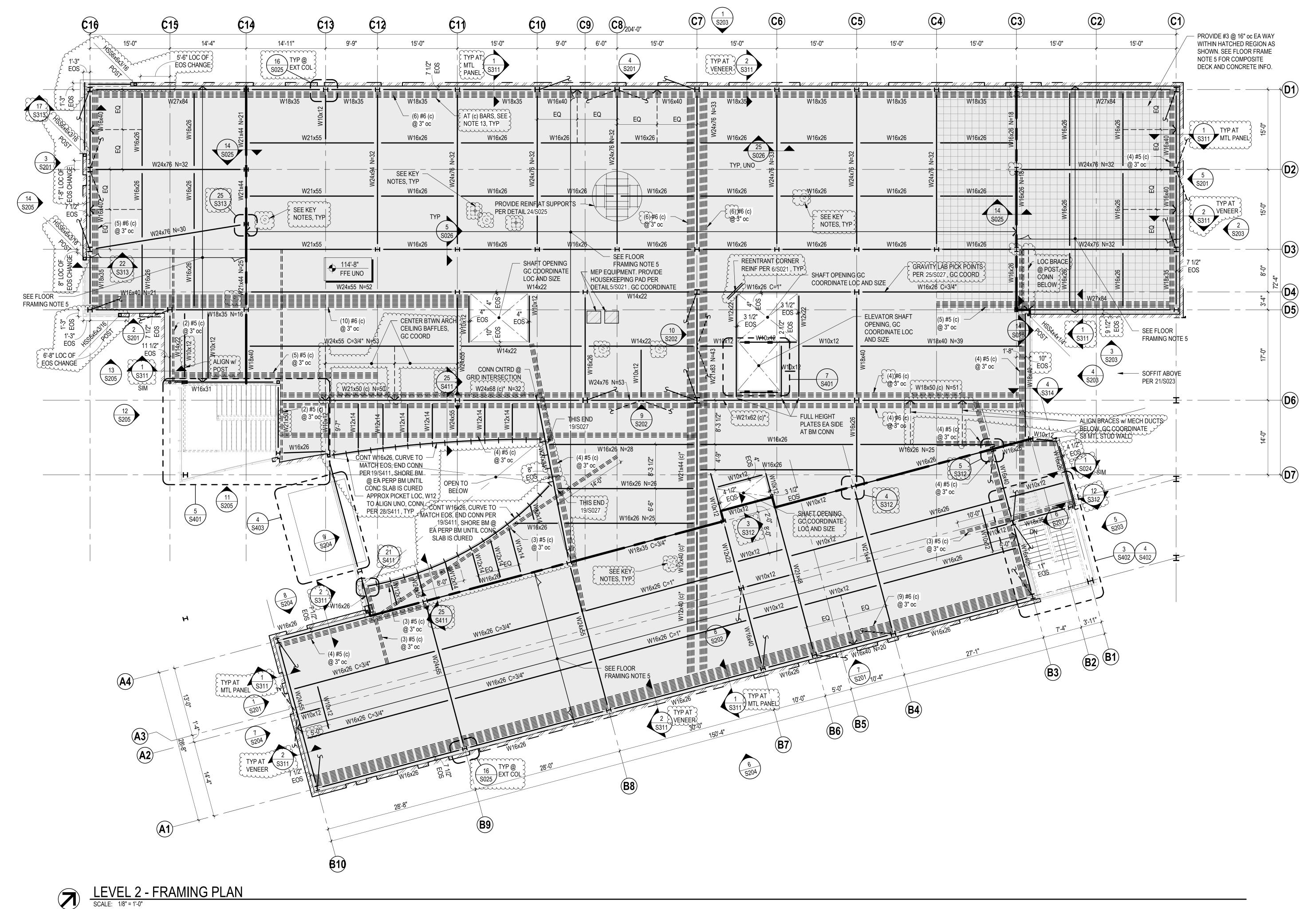
| E | | R FRAMING PLAN NOTES |
|---|------------|-------------------------------------|
| ξ | 1. | REFER TO SHEETS S001, |
| ξ | 2. | REFER TO SHEETS S021 |
| ł | 3. | PROJECT ELEVATION 100 |
| ~ | 4. | VERIFY ALL DIMENSIONS |
| - | | FABRICATION AND CONS |
| - | 5. | 3" CONCRETE TOPPING C |
| | | OTHERWISE. SEE DETAIL |
| | 6. | AT ALL COMPOSITE DECK |
| - | 7. | REPETITIVE FRAMING IS S |
| | | INDICATED IN PLAN, UNLE |
| - | 8. | BEAMS FRAMING INTO W |
| - | | OTHERWISE. |
| | 9. | COORDINATE SIZES AND |
| - | | OPENINGS ARE INDICATE |
| | | TO DETAIL 3/S025 FOR OF |
| | 10. | STRUCTURAL STEEL SHC |
| | | PATCH, TOUCH UP AND G |
| | 11. | HOT DIP GALVANIZE ALL |
| | 40 | AFTER COMPLETION. |
| | 12. | STEEL MEMBERS DESIGN |
| | 13. | AT (c) REINFORCING BAR |
| | 14. | AT ALL EXTERIOR BEAMS |
| | 15. | SHEAR TABS AS INDICATE |
| | 15. | AT CANTILEVERS DESIGN OTHERWISE. |
| | 16. | LOCALIZED SLOPE TO DR |
| | 10. 17. | REFER TO SHEET S501 FC |
| - | 17. | COLUMNS NOT CONTINU |
| - | 10. | PER DETAIL 2/S026 UNLE |
| L | w | |
| | | |



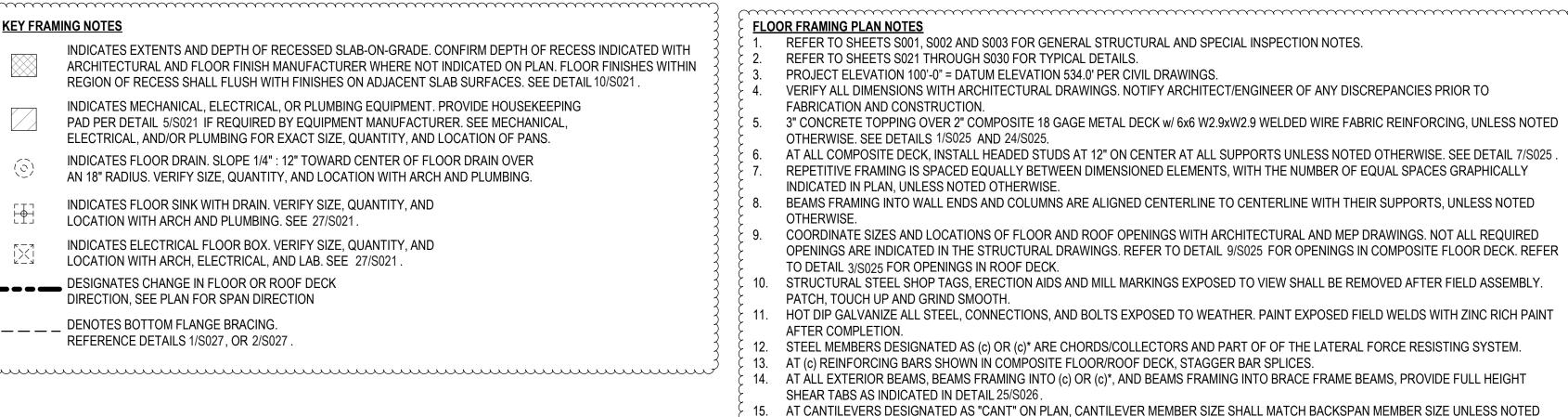
| (EY FOUNDATION/FIRS | T FLOOR NOTES |
|---------------------|---------------|
| \cdots | \cdots |
| | |

| | INDICATES FOOTING MARK NUMBER. SEE SCHEDULE ON THIS SHEET FOR SIZE AND REINFORCEMENT |
|------------------|---|
| | INDICATES EXTENTS AND DEPTH OF RECESSED SLAB-ON-GRADE. CON ARCHITECTURAL AND FLOOR FINISH MANUFACTURER WHERE NOT INE REGION OF RECESS SHALL FLUSH WITH FINISHES ON ADJACENT SLAB |
| | INDICATES MECHANICAL, ELECTRICAL, OR PLUMBING EQUIPMENT. PRO PAD PER DETAIL 5/S021 IF REQUIRED BY EQUIPMENT MANUFACTUREF ELECTRICAL, AND/OR PLUMBING FOR EXACT SIZE, QUANTITY, AND LOC |
| ss | INDICATES FOOTING STEP LOCATION. SEE DETAIL 22/S021. |
| 8 - S | INDICATES APPROXIMATE LOCATION OF PIPE OR CONDUIT THROUGH I FOOTING, AND/OR BELOW FOOTING. SEE DETAIL 15/S021 . NOT ALL LOC COORDINATE WITH MEP DRAWINGS FOR QUANTITIES, SIZES AND LOCA |
| | INDIGATED FLOOD DDAINL OLODE 4/41 401 TOMADD OFNITED OF FLOOD |





| ~ | |
|-------------|--|
| KEY FRAM | ING NOTES |
| | INDICATES EXTENTS AND DEPTH OF RECESSED SLAB-ON ARCHITECTURAL AND FLOOR FINISH MANUFACTURER WH REGION OF RECESS SHALL FLUSH WITH FINISHES ON AD |
| | INDICATES MECHANICAL, ELECTRICAL, OR PLUMBING EQU PAD PER DETAIL 5/S021 IF REQUIRED BY EQUIPMENT MAI ELECTRICAL, AND/OR PLUMBING FOR EXACT SIZE, QUANT |
| (\hat{o}) | INDICATES FLOOR DRAIN. SLOPE 1/4" : 12" TOWARD CENT AN 18" RADIUS. VERIFY SIZE, QUANTITY, AND LOCATION W |
| | INDICATES FLOOR SINK WITH DRAIN. VERIFY SIZE, QUANT LOCATION WITH ARCH AND PLUMBING. SEE 27/S021. |
| | INDICATES ELECTRICAL FLOOR BOX. VERIFY SIZE, QUANT LOCATION WITH ARCH, ELECTRICAL, AND LAB. SEE 27/S0 |
| * * * | DESIGNATES CHANGE IN FLOOR OR ROOF DECK DIRECTION, SEE PLAN FOR SPAN DIRECTION |
| | DENOTES BOTTOM FLANGE BRACING. REFERENCE DETAILS 1/S027, OR 2/S027. |
| Cumu | |

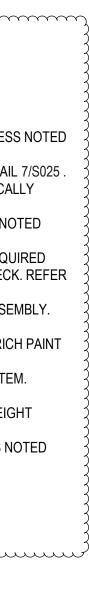


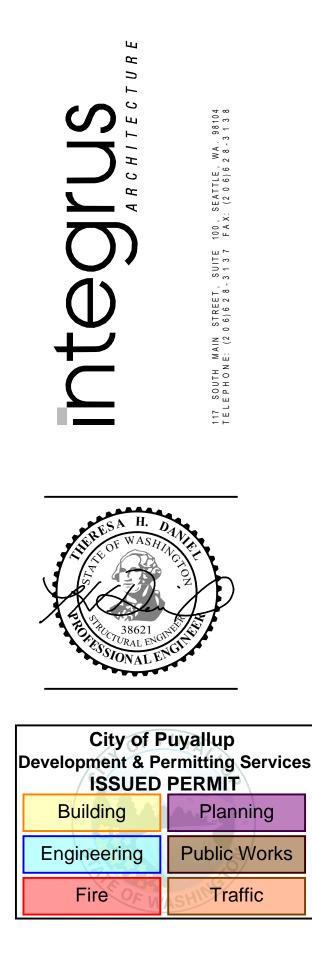
OTHERWISE. 16. LOCALIZED SLOPE TO DRAIN. PROVIDE MAXIMUM 1/4" : 12" SLOPE TO DRAIN WITHIN 18" RADIUS AROUND DRAIN

17. REFER TO SHEET S501 FOR LOAD MAPS. 18. COLUMNS NOT CONTINUOUS TO LEVEL ABOVE SHALL TERMANITE AT BOTTOM OF SLAB. PROVIDE COLUMN CAP PLATE

PER DETAIL 2/S026 UNLESS NOTED OTHERWISE.

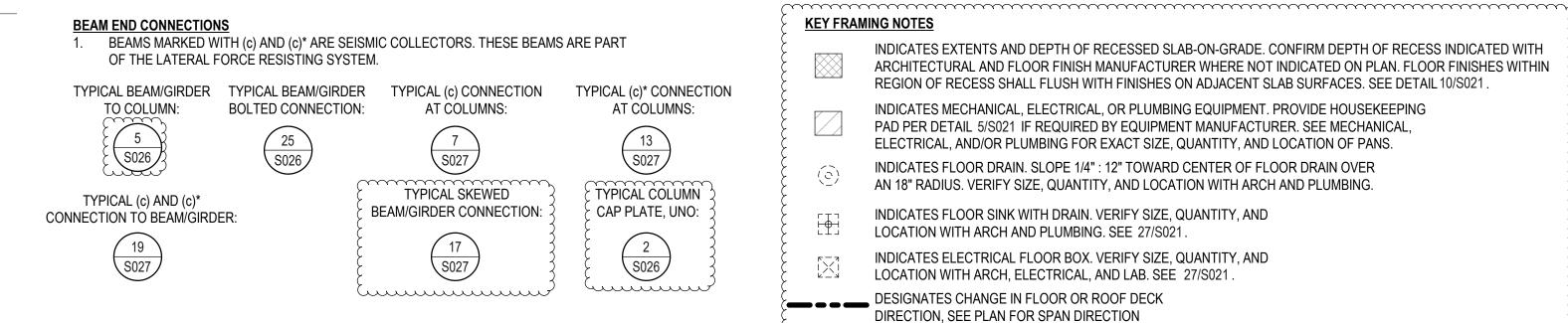
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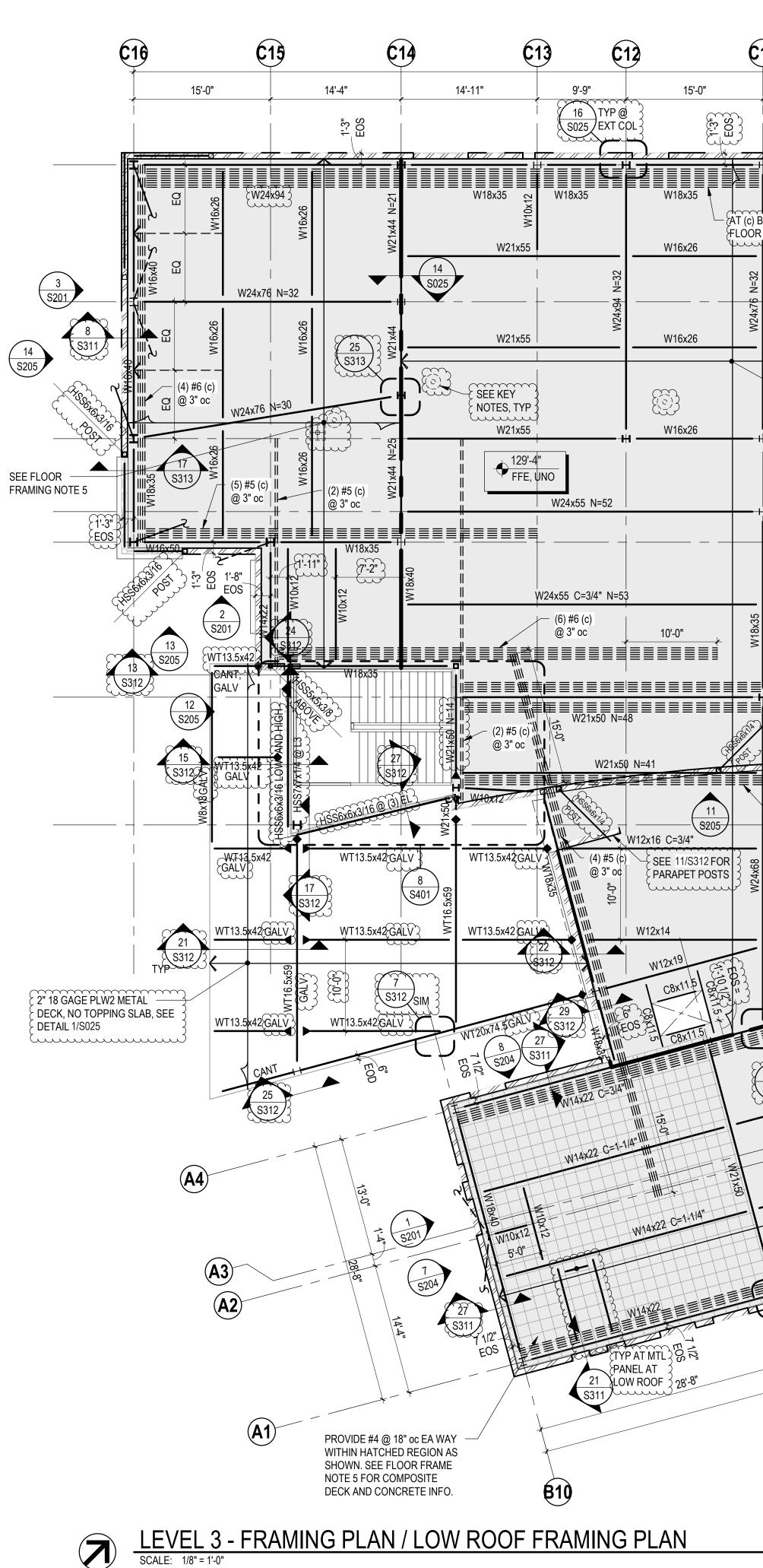






S102





INDICATES EXTENTS AND DEPTH OF RECESSED SLAB-ON-GRADE. CONFIRM DEPTH OF RECESS INDICATED WITH ARCHITECTURAL AND FLOOR FINISH MANUFACTURER WHERE NOT INDICATED ON PLAN. FLOOR FINISHES WITHIN REGION OF RECESS SHALL FLUSH WITH FINISHES ON ADJACENT SLAB SURFACES. SEE DETAIL 10/S021. INDICATES MECHANICAL, ELECTRICAL, OR PLUMBING EQUIPMENT. PROVIDE HOUSEKEEPING PAD PER DETAIL 5/S021 IF REQUIRED BY EQUIPMENT MANUFACTURER. SEE MECHANICAL, ELECTRICAL, AND/OR PLUMBING FOR EXACT SIZE, QUANTITY, AND LOCATION OF PANS. INDICATES FLOOR DRAIN. SLOPE 1/4" : 12" TOWARD CENTER OF FLOOR DRAIN OVER AN 18" RADIUS. VERIFY SIZE, QUANTITY, AND LOCATION WITH ARCH AND PLUMBING.

INDICATES FLOOR SINK WITH DRAIN. VERIFY SIZE, QUANTITY, AND LOCATION WITH ARCH AND PLUMBING. SEE 27/S021.

INDICATES ELECTRICAL FLOOR BOX. VERIFY SIZE, QUANTITY, AND LOCATION WITH ARCH, ELECTRICAL, AND LAB. SEE 27/S021.

ESIGNATES CHANGE IN FLOOR OR ROOF DECK

DENOTES BOTTOM FLANGE BRACING.

_ _ _ _ _

REFERENCE DETAILS 1/S027. OR 2/S027 FLOOR FRAMING PLAN NOTES REFER TO SHEETS S001, S002 AND S003 FOR GENERAL STRUCTURAL AND SPECIAL INSPECTION NOTES.

REFER TO SHEETS S021 THROUGH S030 FOR TYPICAL DETAILS. PROJECT ELEVATION 100'-0" = DATUM ELEVATION 534.0' PER CIVIL DRAWINGS.

VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO FABRICATION AND CONSTRUCTION.

OTHERWISE. SEE DETAILS 1/S025 AND 24/S025.

REPETITIVE FRAMING IS SPACED EQUALLY BETWEEN DIMENSIONED ELEMENTS, WITH THE NUMBER OF EQUAL SPACES GRAPHICALLY INDICATED IN PLAN, UNLESS NOTED OTHERWISE.

OTHERWISE. COORDINATE SIZES AND LOCATIONS OF FLOOR AND ROOF OPENINGS WITH ARCHITECTURAL AND MEP DRAWINGS. NOT ALL REQUIRED

TO DETAIL 3/S025 FOR OPENINGS IN ROOF DECK. 10. STRUCTURAL STEEL SHOP TAGS, ERECTION AIDS AND MILL MARKINGS EXPOSED TO VIEW SHALL BE REMOVED AFTER FIELD ASSEMBLY.

PATCH, TOUCH UP AND GRIND SMOOTH. 11. HOT DIP GALVANIZE ALL STEEL, CONNECTIONS, AND BOLTS EXPOSED TO WEATHER. PAINT EXPOSED FIELD WELDS WITH ZINC RICH PAINT AFTER COMPLETION.

12. STEEL MEMBERS DESIGNATED AS (c) OR (c)* ARE CHORDS/COLLECTORS AND PART OF OF THE LATERAL FORCE RESISTING SYSTEM. 13. AT (c) REINFORCING BARS SHOWN IN COMPOSITE FLOOR/ROOF DECK, STAGGER BAR SPLICES. 14. AT ALL EXTERIOR BEAMS, BEAMS FRAMING INTO (c) OR (c)*, AND BEAMS FRAMING INTO BRACE FRAME BEAMS, PROVIDE FULL HEIGHT SHEAR TABS AS INDICATED IN DETAIL 25/S026.

15. AT CANTILEVERS DESIGNATED AS "CANT" ON PLAN, CANTILEVER MEMBER SIZE SHALL MATCH BACKSPAN MEMBER SIZE UNLESS NOTED OTHERWISE. 16. LOCALIZED SLOPE TO DRAIN. PROVIDE MAXIMUM 1/4" : 12" SLOPE TO DRAIN WITHIN 18" RADIUS AROUND DRAIN 17. REFER TO SHEET S501 FOR LOAD MAPS.

18. COLUMNS NOT CONTINUOUS TO LEVEL ABOVE SHALL TERMANITE AT BOTTOM OF SLAB. PROVIDE COLUMN CAP PLATE PER DETAIL 2/S026 UNLESS NOTED OTHERWISE.

| C 1 |) (1 | 10 C9 | C8 _{204'-0"} | C7 | 1 S203 | 26 (| C5) (| C4) |
|-----------------|---|------------------------------------|---|---|---|--|---|--|
| | 15'-0" TYP AT MTL PANEL S311 | 9'-0" | 6'-0" 15'-0 4 S201 | 1 { | 15'-0" TYP @ EXT 22 COL NOT 22 S025 CONT TO RF | 15'-0" TYP AT 8 VENEER S311 | | 15'-0" |
| | W18x35 W18x35 (9) #6 (c) NOTE 13, TYP 2 @ 3" oc | W16x57 N=15 EQ E | Q EQ EQ | V=15 EQ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ | W18x35 | W18x35 | W18x35 | W18x35 |
| W24x76 N=32 I 2 | W16x26 | W16x26 | W16x26 W16x26 | · | W16x26 25 S026 TYP, UNO W16x26 | W16x26 | W16x26 | |
| | SEE FLOOR FRAMING | | | | - (6) #6 (c) @ 3" oc W16x26 | SEE KEY {NOTES, TYP} W16x26 | PROVIDE REINF AT SUPPOR PER DETAIL 24/S025 W16x26 | · |
| - | W14x22 | | W14x22 SEE KEY | | W16x26 C=1" | | | '18x35 |
| W18x35 | EOS SOLUTION W14x22 | (5) #6 (c) | W14x22 | | 0x12 | EOS W10x12 W10x12 U W10x12 ELEVATOR SHAF COORDINATE LC | T OPENING GC | 18x35 |
| | | (5) #6 (c) @ 3" oc | W21x62 N=32 9 5202 W16x26 | | h | | M16x26 | Image: Image |
| W24x68 | (5) #6 (c) @ 3" oc | V V21x50 C=3 | W12x14 | | EOS EOS | 3 1/2" EOS W10x12 SHAFT OPENING | W16X2 | + (5) (S312) (N16x26 |
| | C8x11.5 | | Si Si Si Si Si Si Si Si Si Si Si Si Si S | S204 | W10x12 3 S312 W10x12 W10x12 W10x12 W10x12 W10x12 | | M21XAA | W16x26 |
| Z | ARCH SK OPENING (6) #6 (c) (3) LOC (3) (3) LOC (4) (3) LOC (4) (3) LOC (4) (3) LOC (4) (4) LOC (4) (4) LOC (4) (4) LOC (4) (4) LOC (4) (4) LOC (4) LOC (4) (4) LOC (4) LOC (4) (4) LOC (4) LOC (4) LOC (4) (4) LOC (4) | | W14x22 C=1-1 | | W10 2011 | EQ W16x50 | EQ (5) #6 (c) @ 3" oc | 5 5 5 S311 LVI |
| | THE OFFAIL S027 PROTECTION | SEE FLOOR FRAMING NOT | W14X22 | | | 6226 TYP AT VENEER AT S311 UVL 03 FLR S311 UVL 03 FLR | 7 S201) 10'-4" (B4) | 27'-1" |
| E | W14X2 | TYP AT VENEER S311 28'-0" | AT 3 | 6 | 50'-4" | B 7 | B5 | |
| | B9 | | B8 | 5204 | | | | |

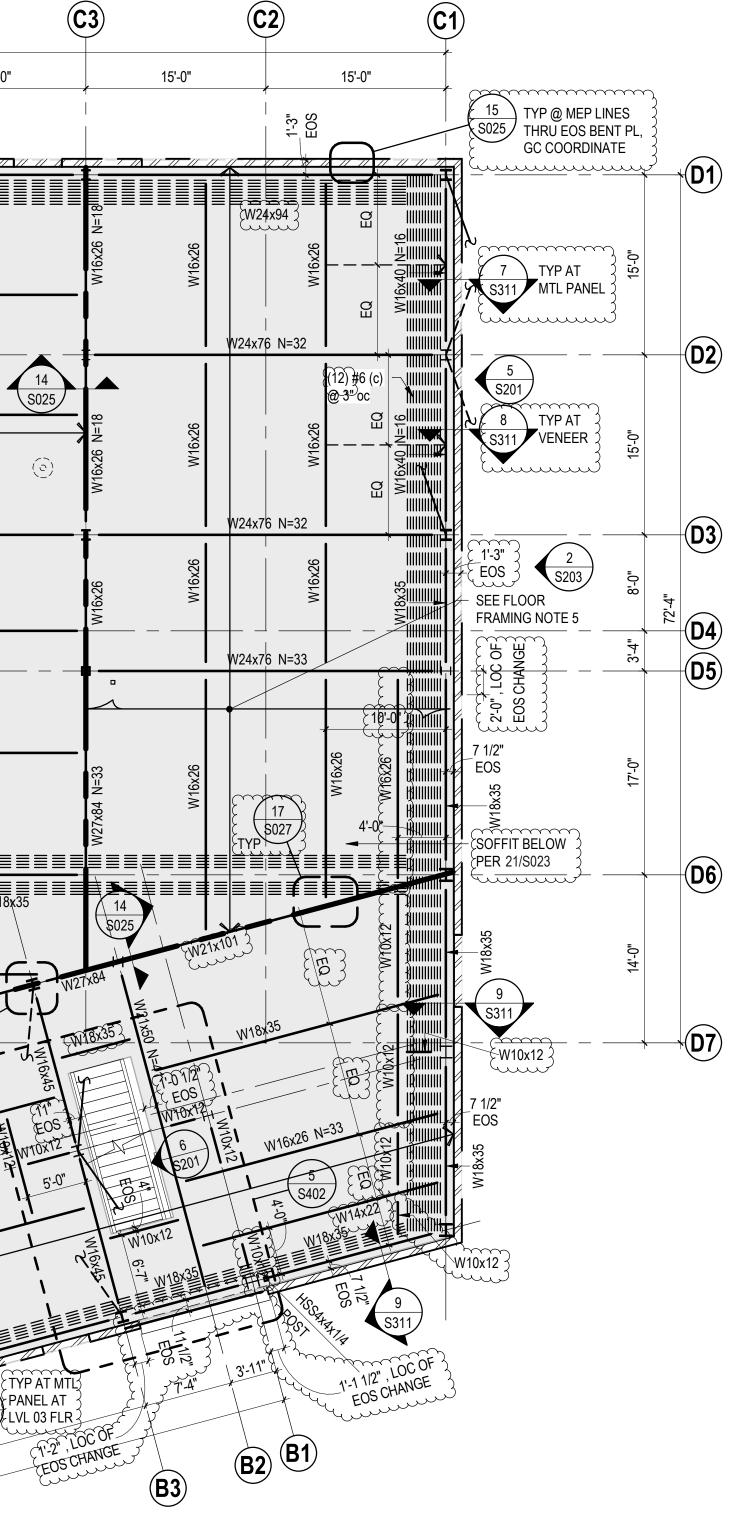
- 3" CONCRETE TOPPING OVER 2" COMPOSITE 18 GAGE METAL DECK w/ 6x6 W2.9xW2.9 WELDED WIRE FABRIC REINFORCING, UNLESS NOTED AT ALL COMPOSITE DECK, INSTALL HEADED STUDS AT 12" ON CENTER AT ALL SUPPORTS UNLESS NOTED OTHERWISE. SEE DETAIL 7/S025. BEAMS FRAMING INTO WALL ENDS AND COLUMNS ARE ALIGNED CENTERLINE TO CENTERLINE WITH THEIR SUPPORTS, UNLESS NOTED OPENINGS ARE INDICATED IN THE STRUCTURAL DRAWINGS. REFER TO DETAIL 9/S025 FOR OPENINGS IN COMPOSITE FLOOR DECK. REFER

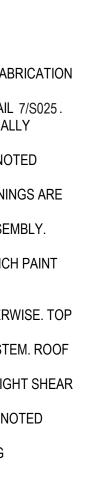
REFER TO SHEETS S001, S002 AND S003 FOR GENERAL STRUCTURAL AND SPECIAL INSPECTION NOTES. REFER TO SHEETS S021 THROUGH S030 FOR TYPICAL DETAILS. PROJECT ELEVATION 100'-0" = DATUM ELEVATION 534.0' PER CIVIL DRAWINGS. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO FABRICATION

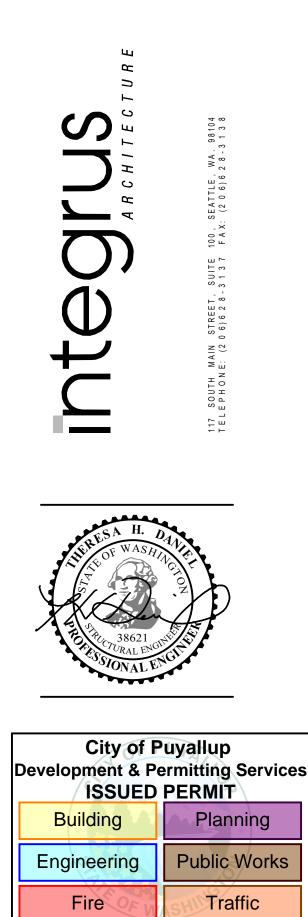
ROOF FRAMING PLAN NOTES

AND CONSTRUCTION. AT ALL COMPOSITE DECK, INSTALL HEADED STUDS AT 12" ON CENTER AT ALL SUPPORTS UNLESS NOTED OTHERWISE. SEE DETAIL 7/S025. REPETITIVE FRAMING IS SPACED EQUALLY BETWEEN DIMENSIONED ELEMENTS, WITH THE NUMBER OF EQUAL SPACES GRAPHICALLY INDICATED IN PLAN, UNLESS NOTED OTHERWISE.

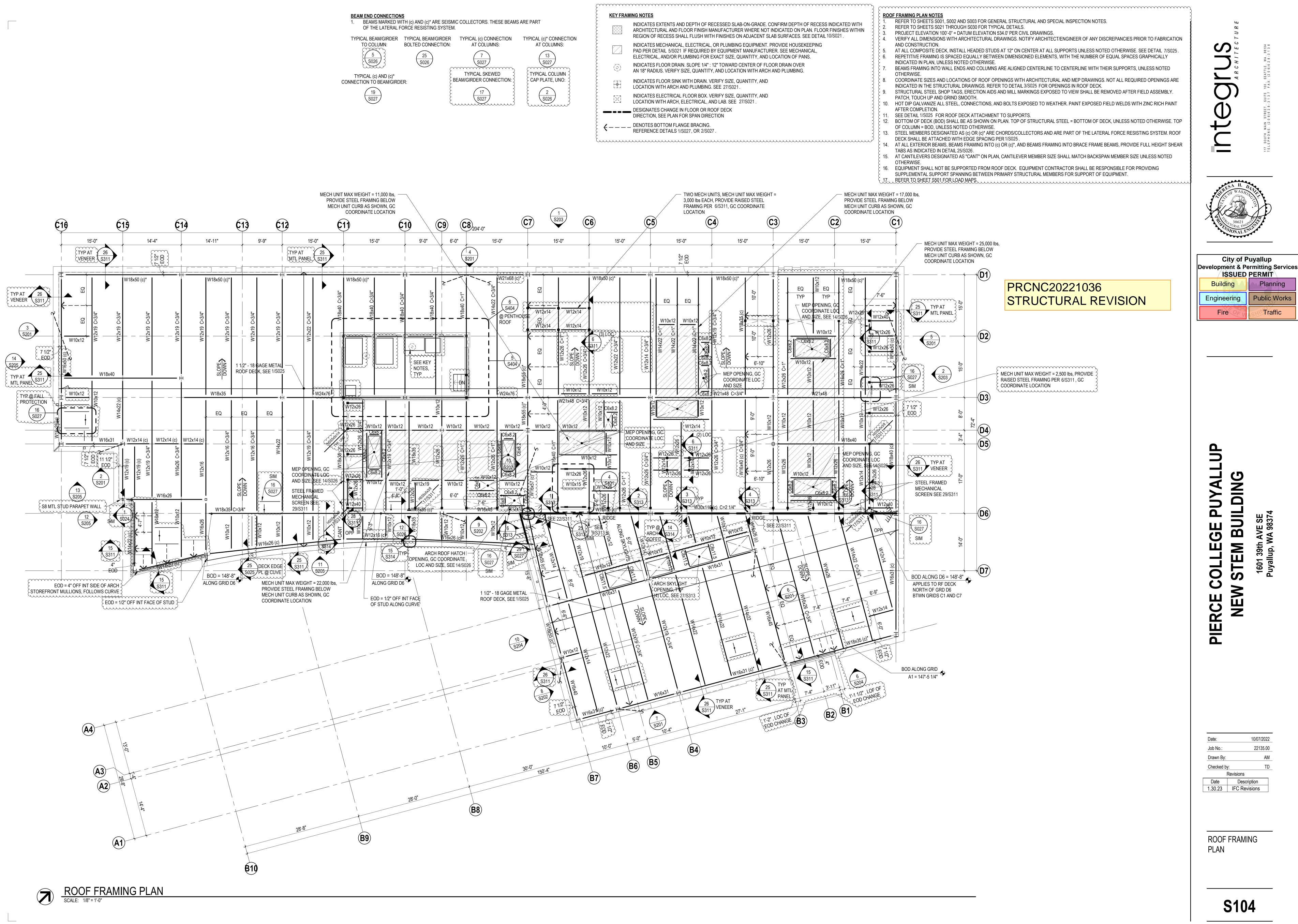
- BEAMS FRAMING INTO WALL ENDS AND COLUMNS ARE ALIGNED CENTERLINE TO CENTERLINE WITH THEIR SUPPORTS, UNLESS NOTED OTHERWISE. COORDINATE SIZES AND LOCATIONS OF ROOF OPENINGS WITH ARCHITECTURAL AND MEP DRAWINGS. NOT ALL REQUIRED OPENINGS ARE INDICATED IN THE STRUCTURAL DRAWINGS. REFER TO DETAIL 3/S025 FOR OPENINGS IN ROOF DECK. STRUCTURAL STEEL SHOP TAGS, ERECTION AIDS AND MILL MARKINGS EXPOSED TO VIEW SHALL BE REMOVED AFTER FIELD ASSEMBLY.
- PATCH, TOUCH UP AND GRIND SMOOTH. HOT DIP GALVANIZE ALL STEEL, CONNECTIONS, AND BOLTS EXPOSED TO WEATHER. PAINT EXPOSED FIELD WELDS WITH ZINC RICH PAINT AFTER COMPLETION.
- SEE DETAIL 1/S025 FOR ROOF DECK ATTACHMENT TO SUPPORTS. 12. BOTTOM OF DECK (BOD) SHALL BE AS SHOWN ON PLAN. TOP OF STRUCTURAL STEEL = BOTTOM OF DECK, UNLESS NOTED OTHERWISE. TOP OF COLUMN = BOD, UNLESS NOTED OTHERWISE.
- 13. STEEL MEMBERS DESIGNATED AS (c) OR (c)* ARE CHORDS/COLLECTORS AND ARE PART OF THE LATERAL FORCE RESISTING SYSTEM. ROOF DECK SHALL BE ATTACHED WITH EDGE SPACING PER 1/S025. 14. AT ALL EXTERIOR BEAMS, BEAMS FRAMING INTO (c) OR (c)*, AND BEAMS FRAMING INTO BRACE FRAME BEAMS, PROVIDE FULL HEIGHT SHEAR
- TABS AS INDICATED IN DETAIL 25/S026. 5. AT CANTILEVERS DESIGNATED AS "CANT" ON PLAN, CANTILEVER MEMBER SIZE SHALL MATCH BACKSPAN MEMBER SIZE UNLESS NOTED OTHERWISE.
- 16. EQUIPMENT SHALL NOT BE SUPPORTED FROM ROOF DECK. EQUIPMENT CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SUPPLEMENTAL SUPPORT SPANNING BETWEEN PRIMARY STRUCTURAL MEMBERS FOR SUPPORT OF EQUIPMENT. 7 17. REFER TO SHEET S501 FOR LOAD MAPS.

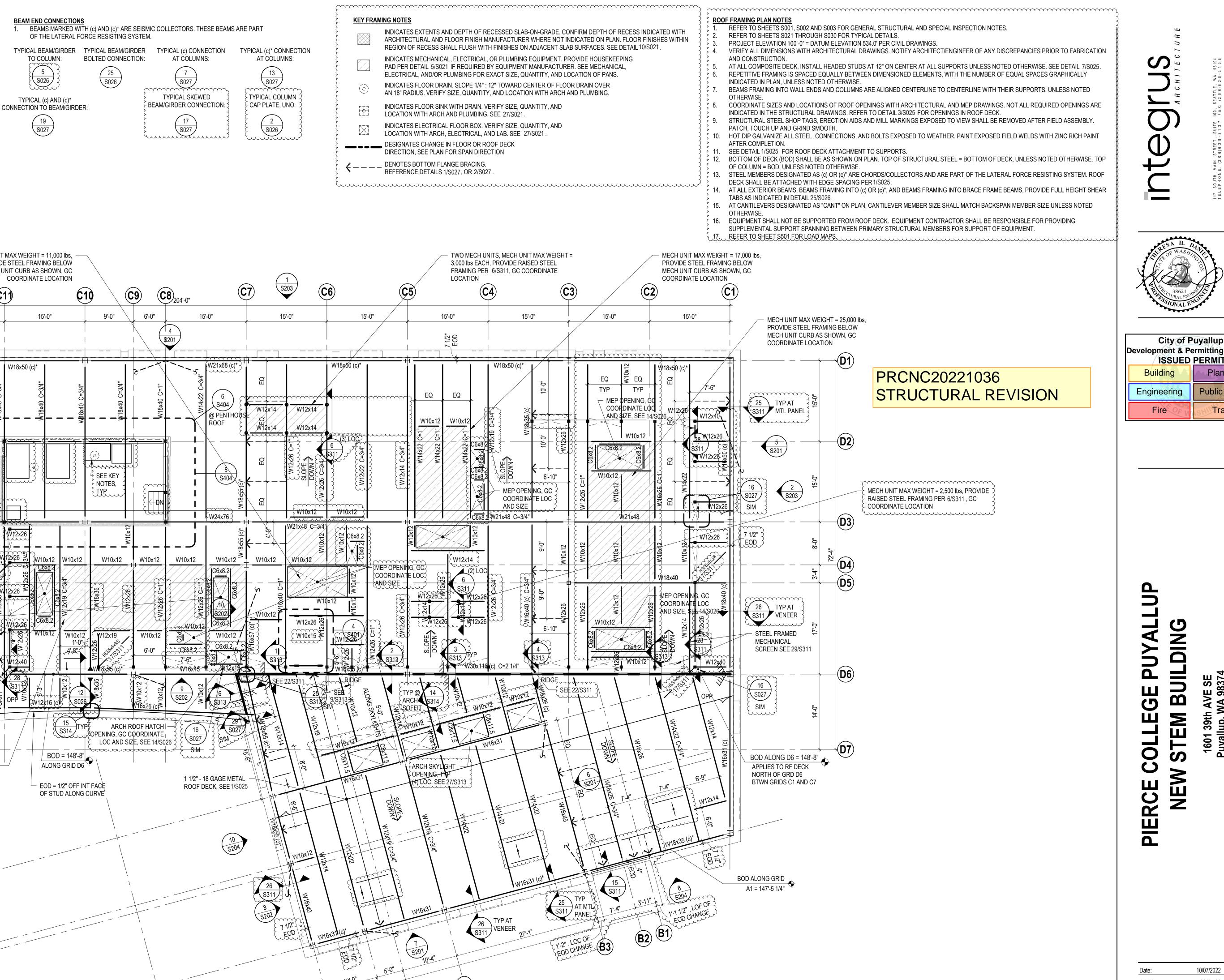


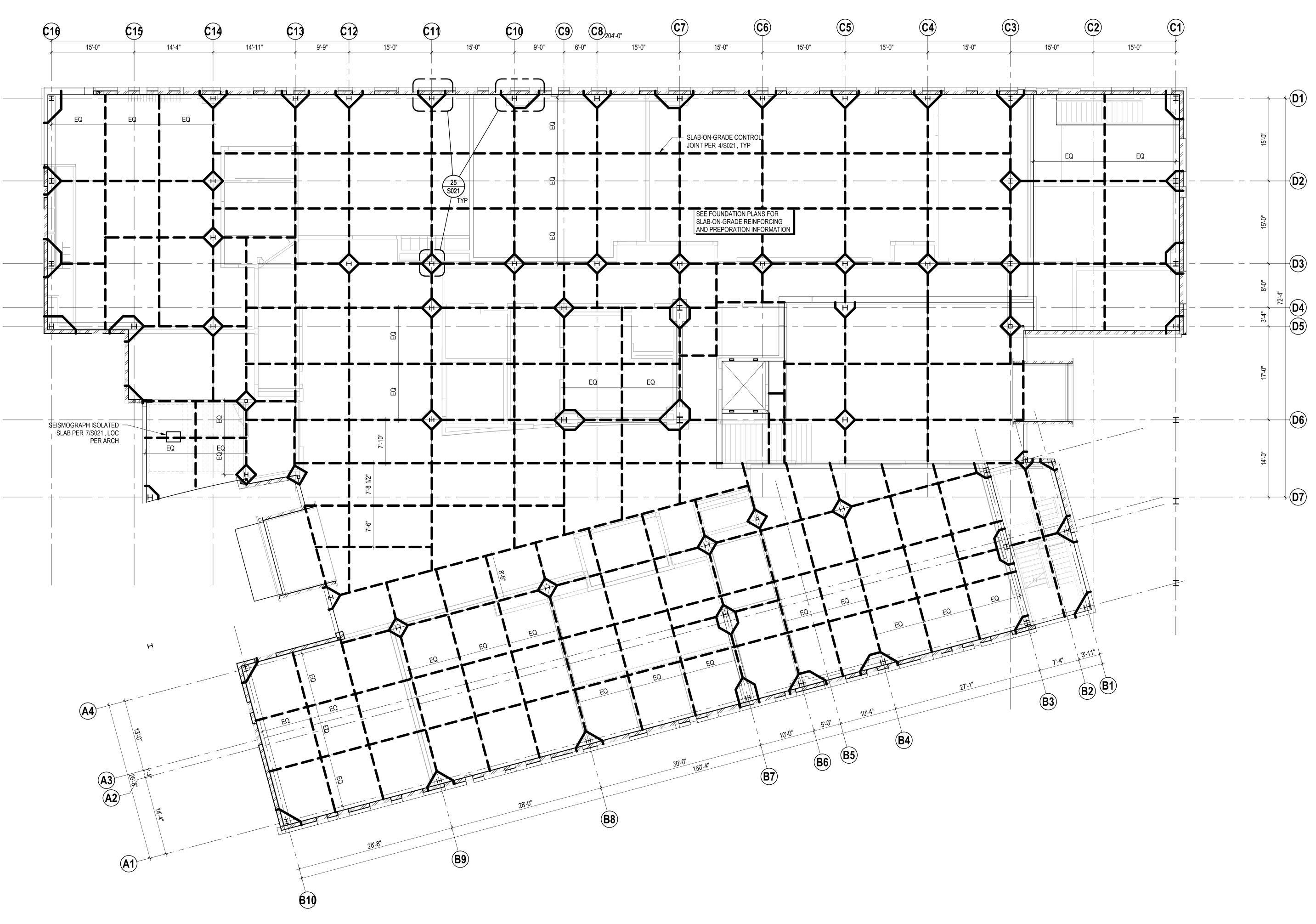








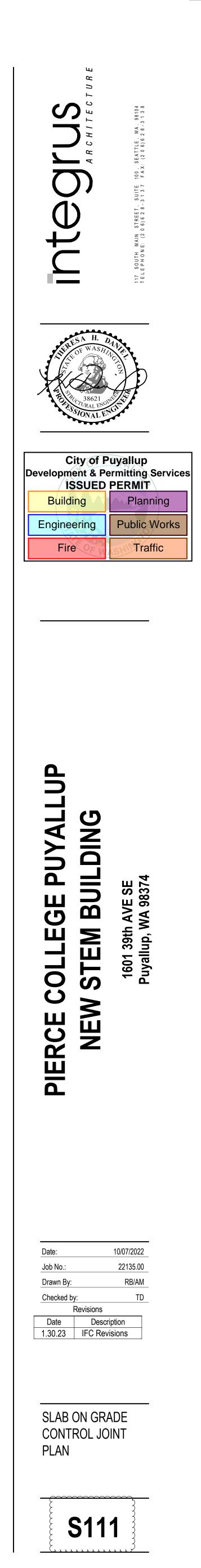


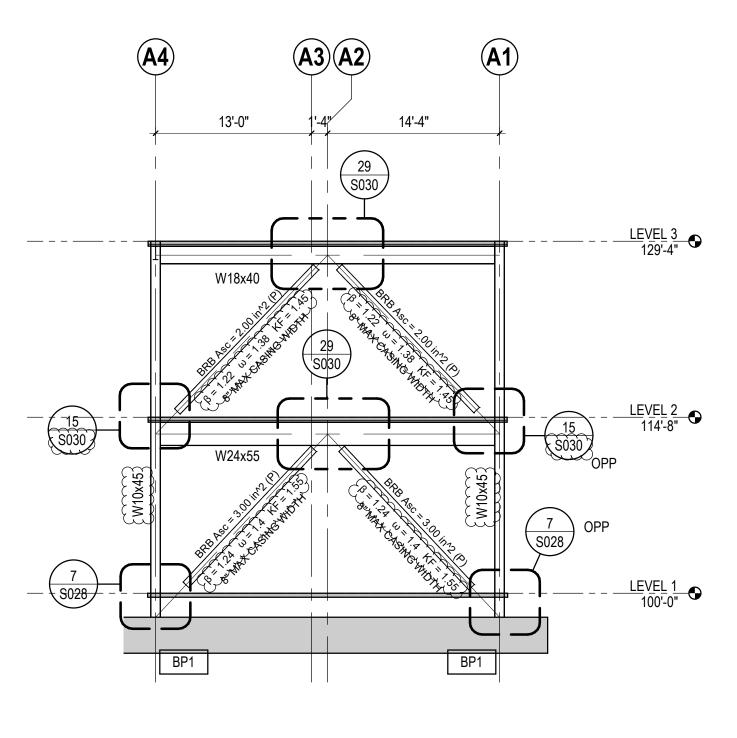


SLAB CONTROL JOINT PLAN - SLAB-ON-GRADE SCALE: 1/8" = 1'-0"

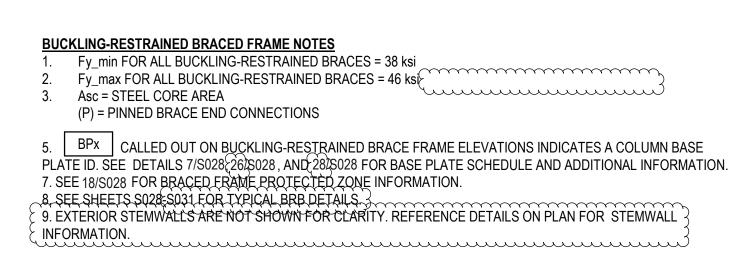
SLAB-ON-GRADE CONTROL JOINT NOTES:

- CONTRACTOR TO SUBMIT CONTROL JOINT LAYOUT TO DESIGN TEAM FOR APPROVAL PRIOR TO POURING SLAB-ON-GRADE CONCRETE.
 SEE PLAN FOR TYPICAL SLAB-GRADE REINFORING.
 SEE DETAIL 4/S021 FOR CONTROL JOINT CONSTRUCTION.



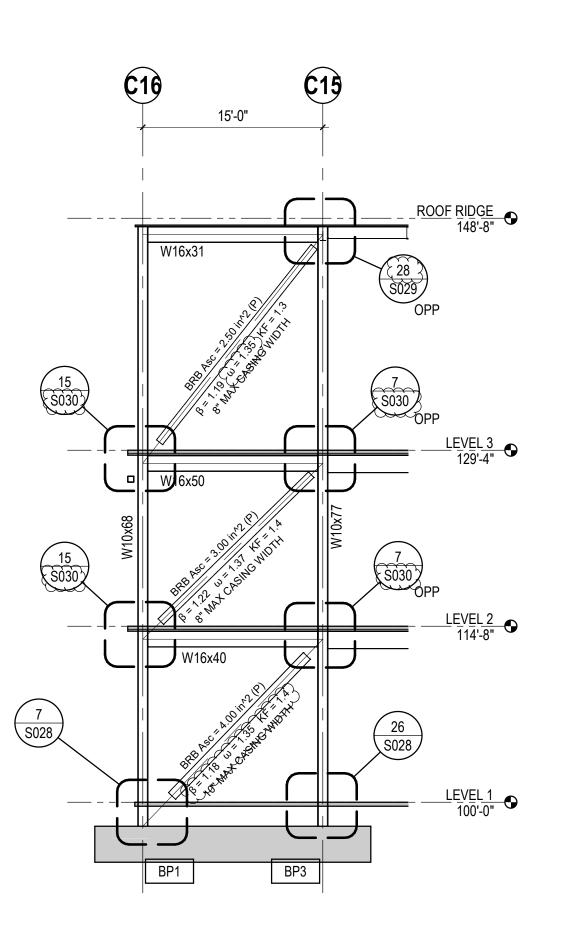


BRACE FRAME ELEVATION - GRID B10 SCALE: 1/8" = 1'-0"



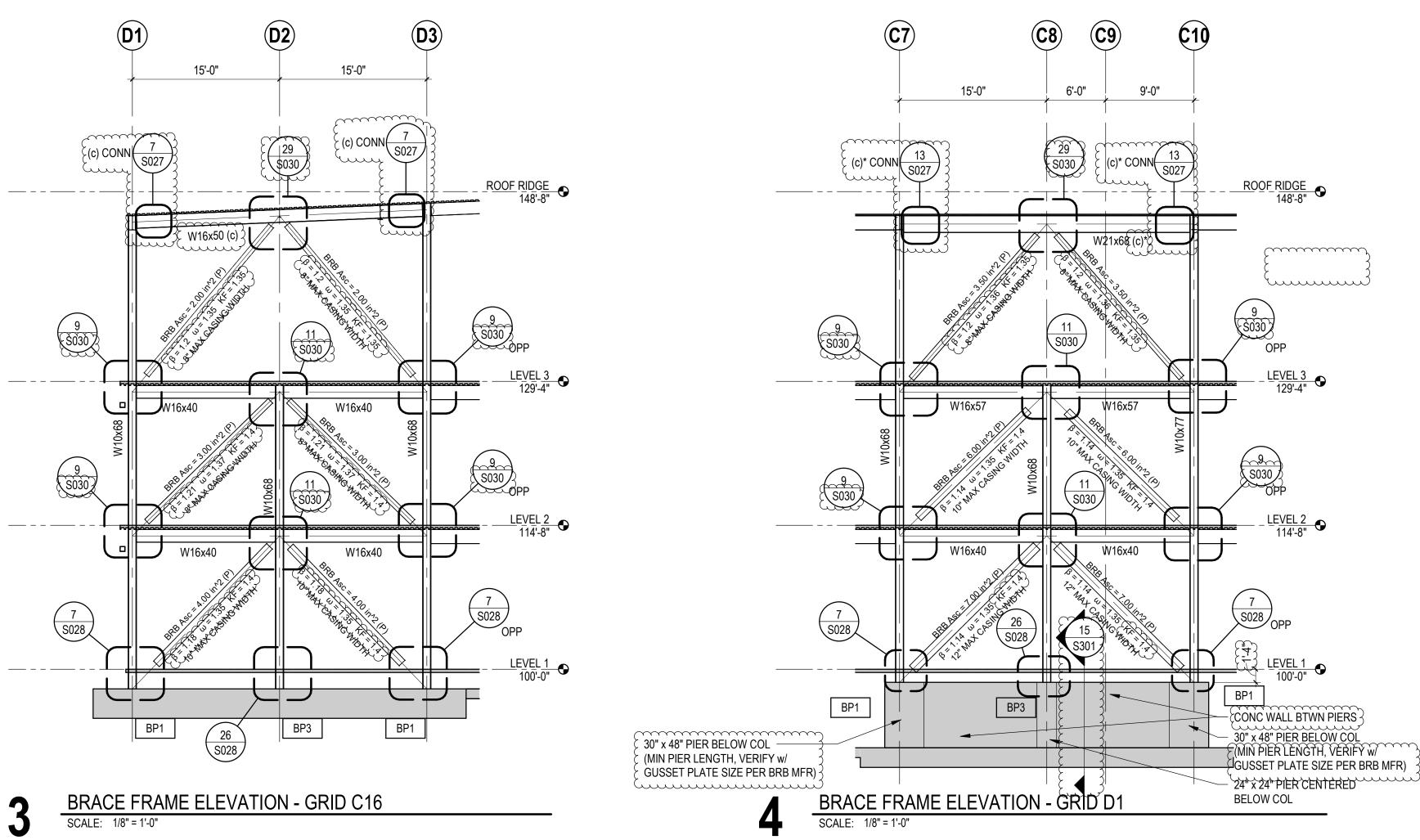
24" x 52" PIER BELOW COL (MIN PIER LENGTH, VERIFY w/ GUSSET PLATE SIZE PER BRB MFR) 24" x 24" PIER CENTERED **BELOW COL**

J

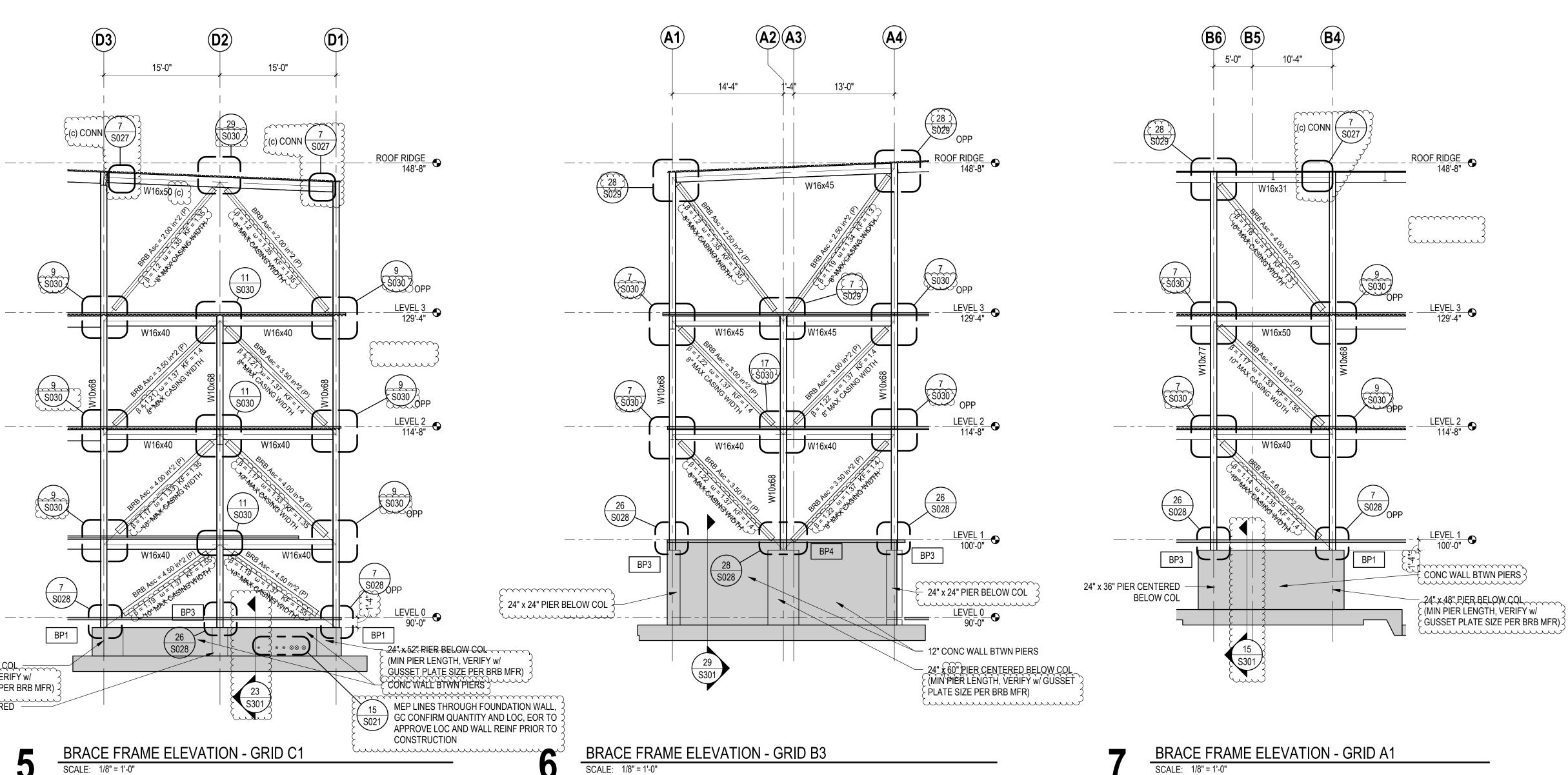


BRACE FRAME ELEVATION - GRID D5 SCALE: 1/8" = 1'-0"

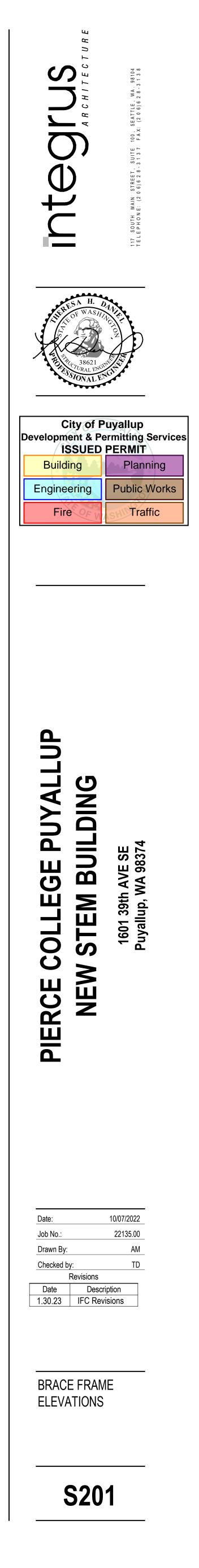
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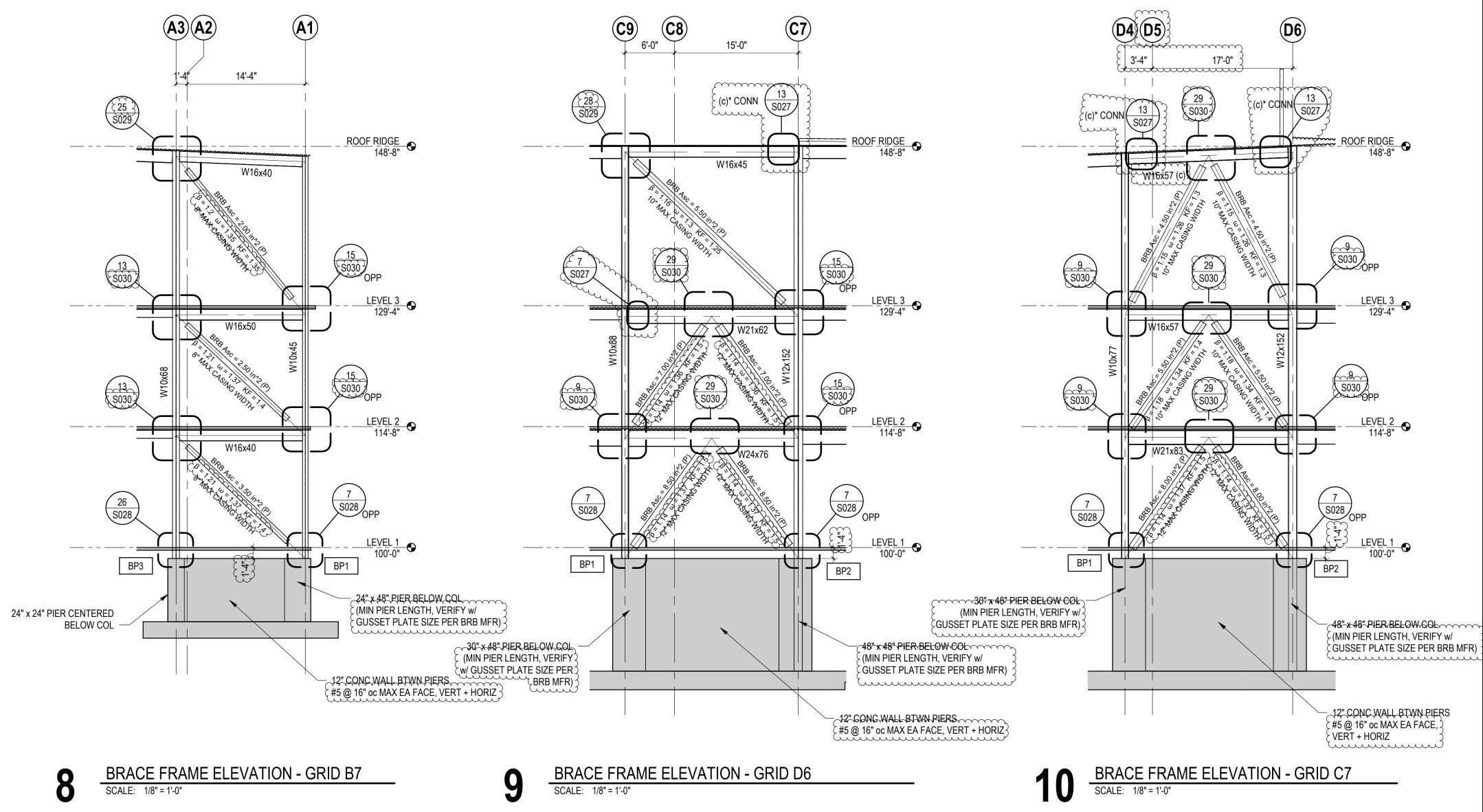




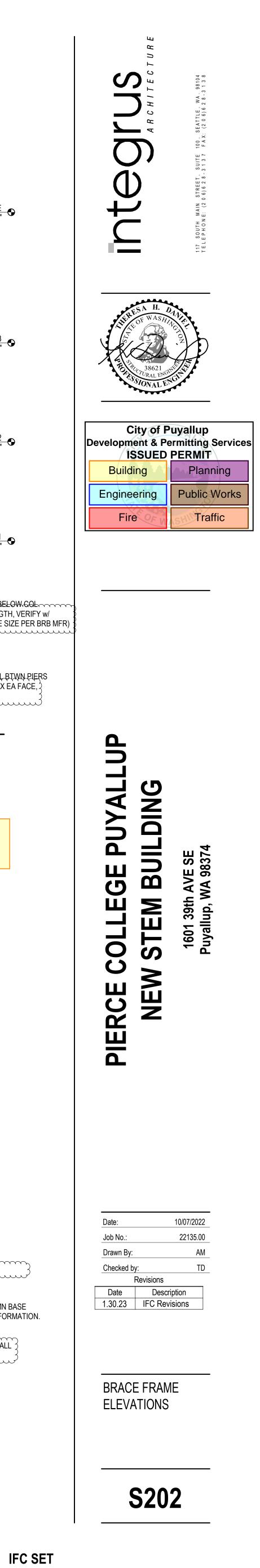


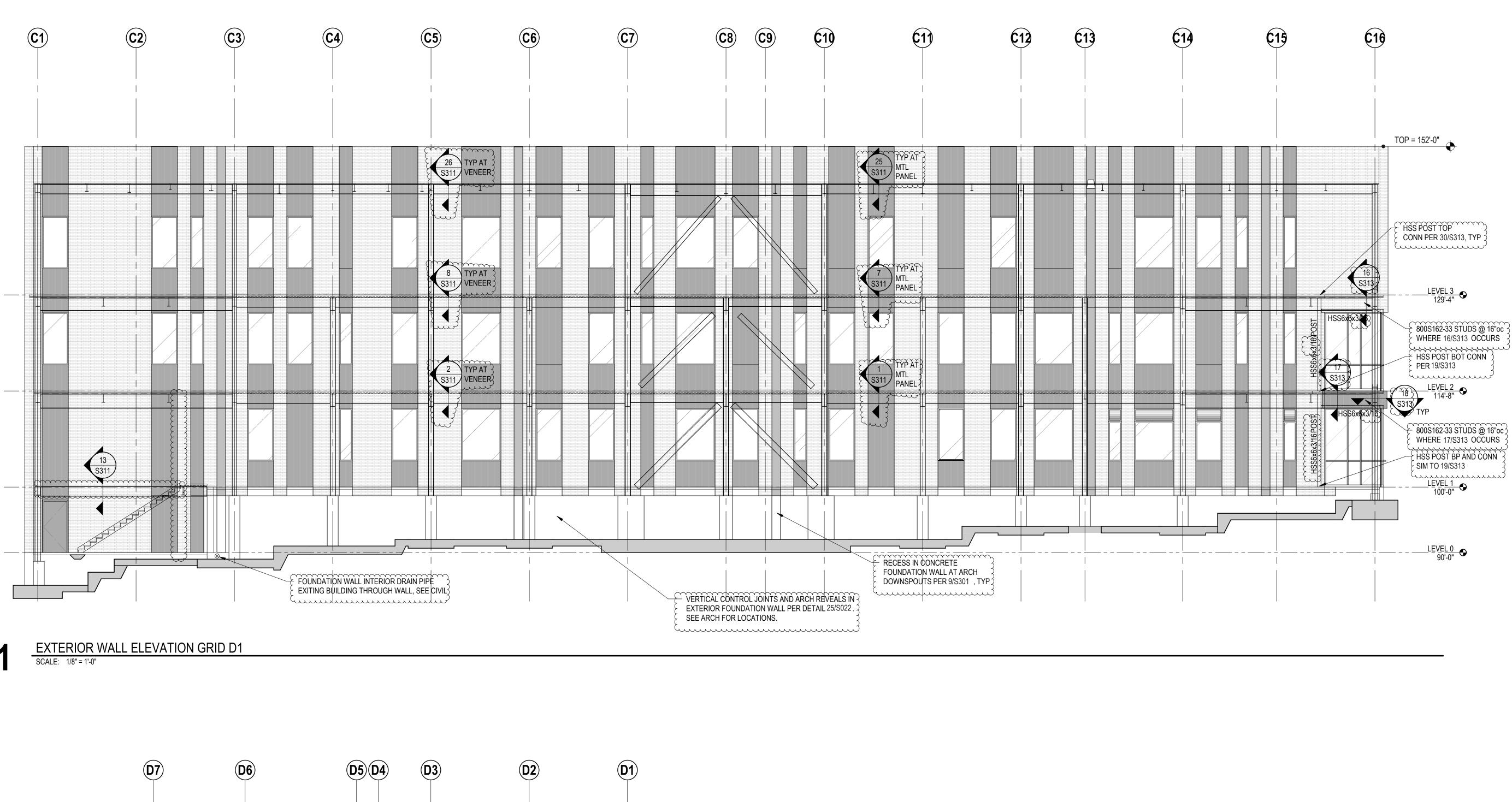
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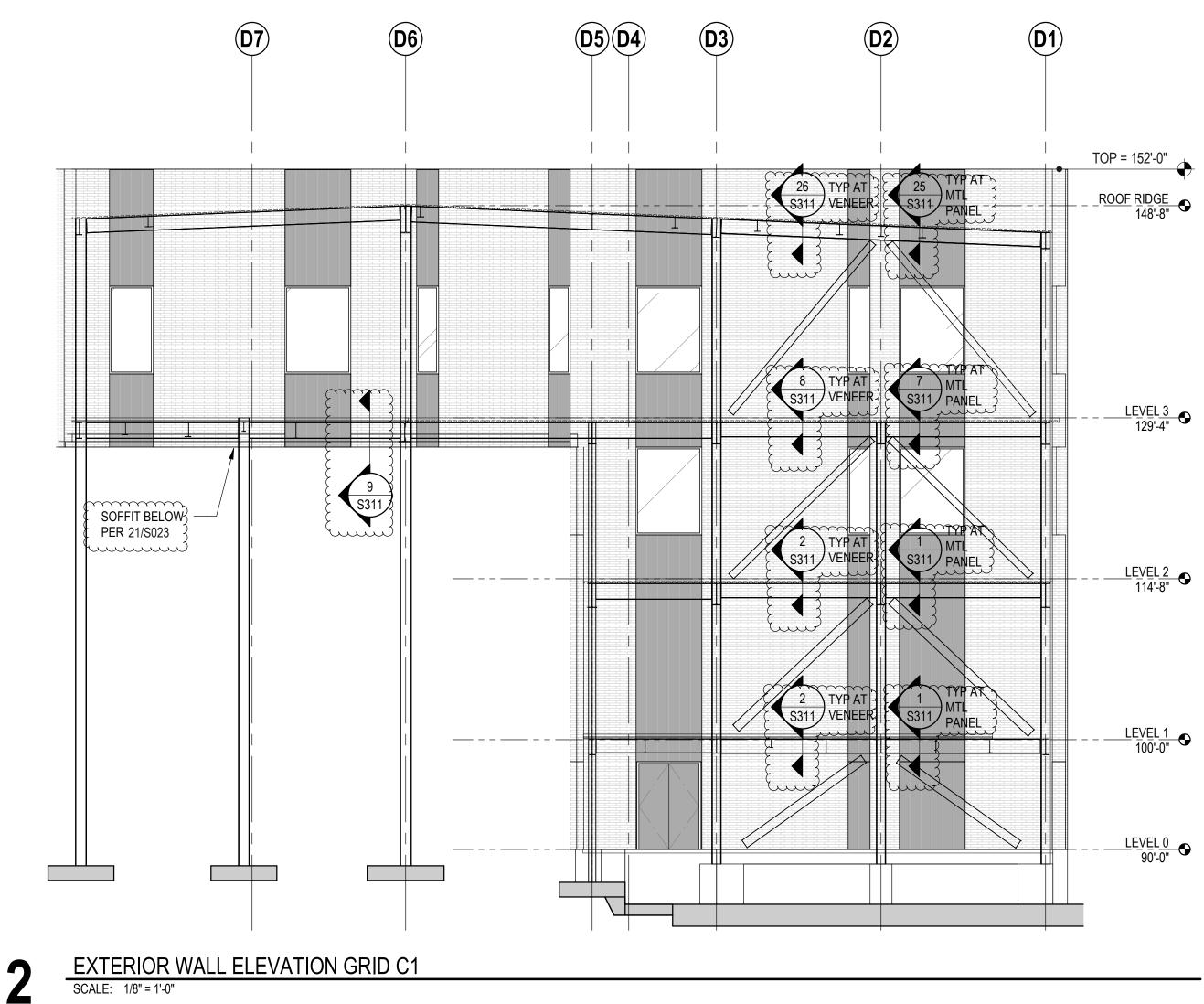


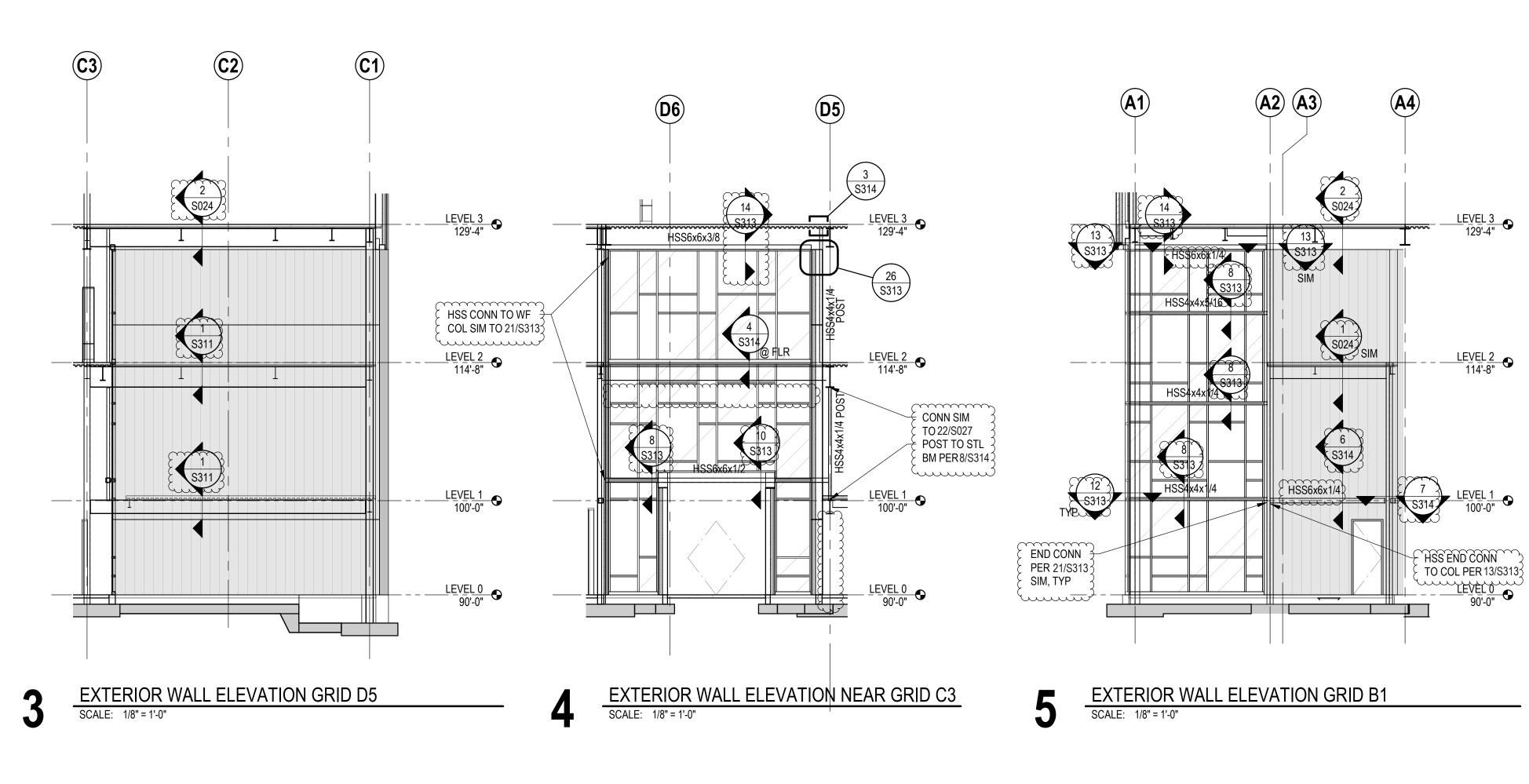


| | BUCKLING-RESTRAINED BRACED FRAME NOTES | |
|---|--|--|
| | 1. Fy_min FOR ALL BUCKLING-RESTRAINED BRACES | |
| | Fy_max FOR ALL BUCKLING-RESTRAINED BRACE | S = 46 kst |
| | 3. Asc = STEEL CORE AREA | |
| | (P) = PINNED BRACE END CONNECTIONS | |
| | | |
| | 5. BPx CALLED OUT ON BUCKLING-RESTRAINED | BRACE FRAME ELEVATIONS INDICATES A COLUMN BAS |
| | PLATE ID. SEE DETAILS 7/S028, 26/S028, AND 28/S028 F | OR BASE PLATE SCHEDULE AND ADDITIONAL INFORM |
| | 7. SEE 18/S028 FOR BRACED FRAME PROTECTED ZON | |
| | 8 SEE SHEETS S028 S031 FOR TYPICAL BRB DETAILS | |
| (| 9. EXTERIOR STEMWALLS ARE NOT SHOWN FOR CLAR | |
| (| 7 | () ITT. REFERENCE DETAILS ON FLAN FOR STEWWALL |
| Ì | ζINFORMATION. | |



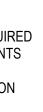


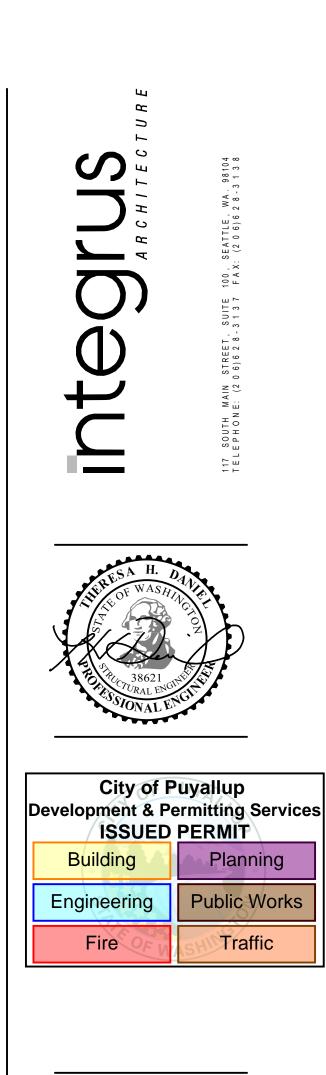




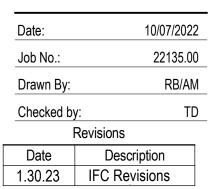
EXTERIOR METAL STUD WALL NOTES: 1. FOR TYPICAL METAL STUD DETAILS SEE SHEETS S023 & S024

- WALL STUDS ARE 800S162-54 @ 16"oc, UNO
- FOR TYPICAL MASONRY VENEER DETAILS SEE SHEET S022 PROVIDE LOOSE STEEL LINTEL ANGLES PER 5/S022 WHERE REQUIRED
- SEE GENERAL NOTES FOR ADDITIONAL METAL STUD REQUIREMENTS VERIFY ALL OPENING SIZES & LOCATIONS WITH ARCHITECTURAL
- DRAWINGS AND MEP SUBCONTRACTORS PRIOR TO CONSTRUCTION 7. TOP OF PARAPET (TOP) IS TOP OF METAL STUD FRAMING



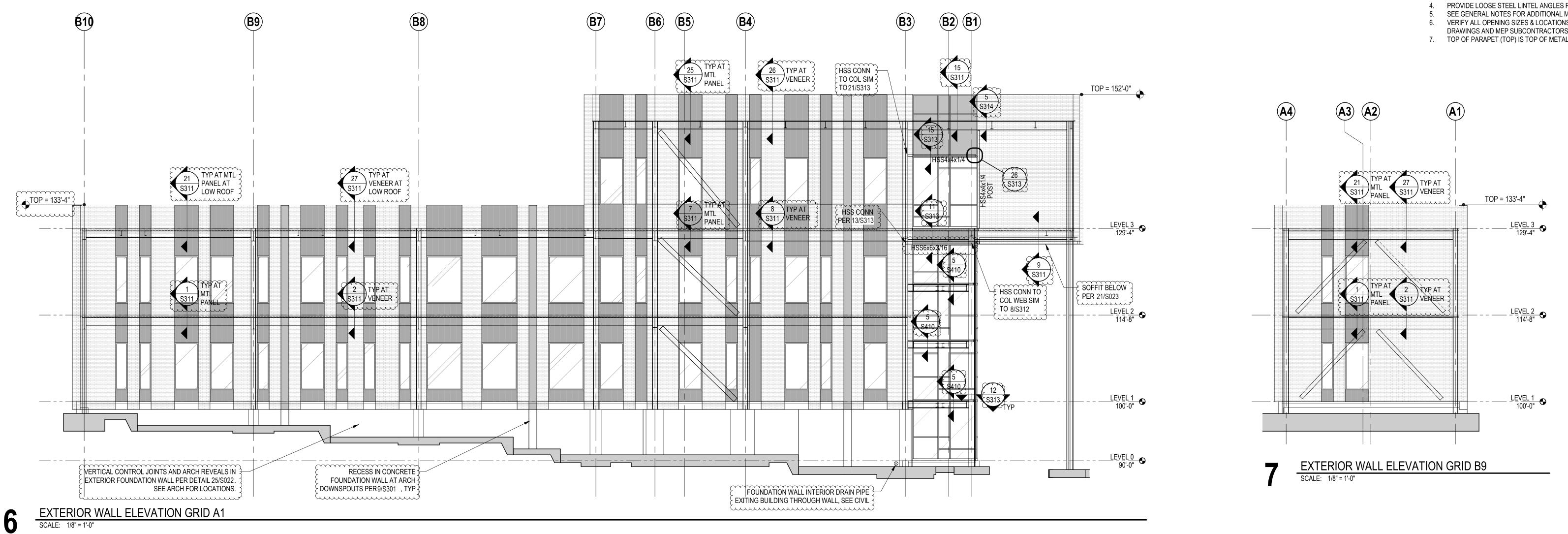


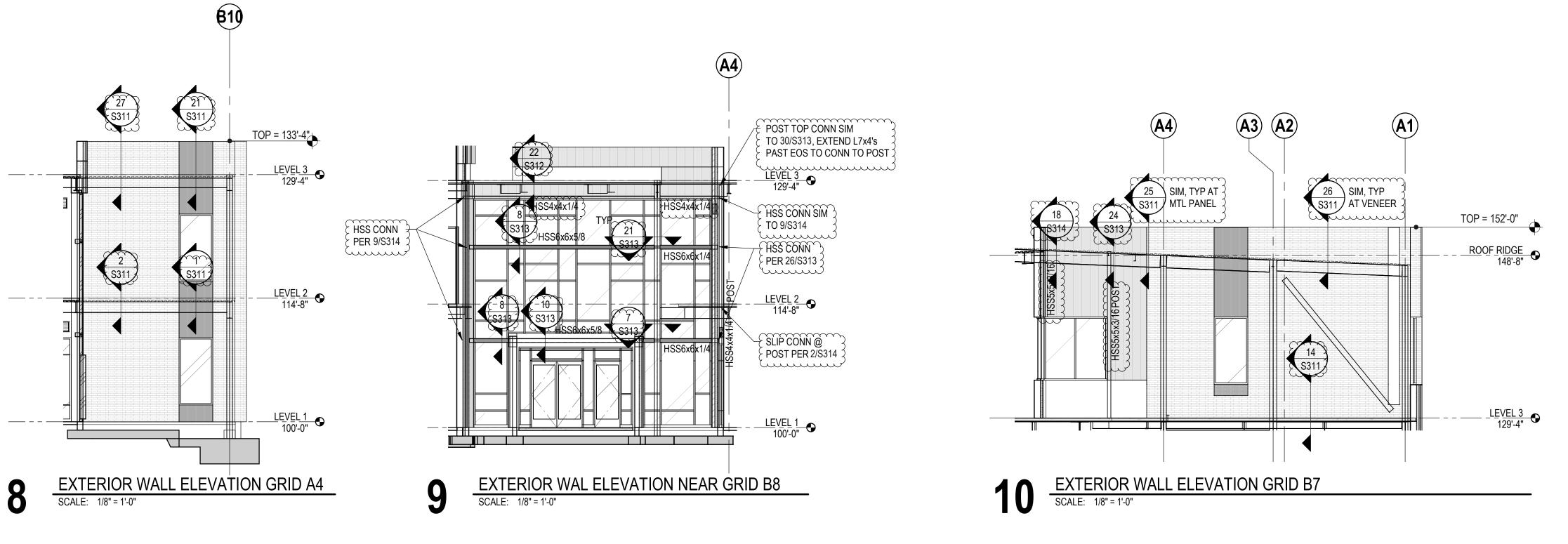








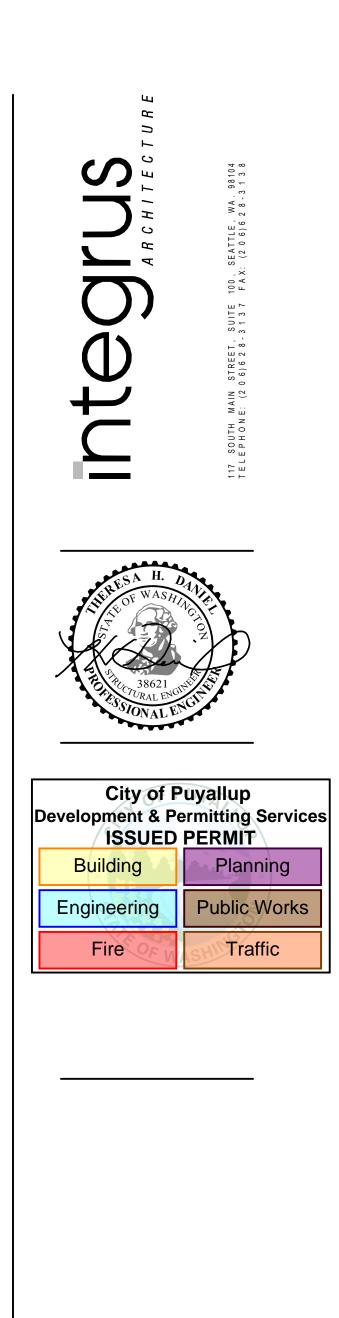


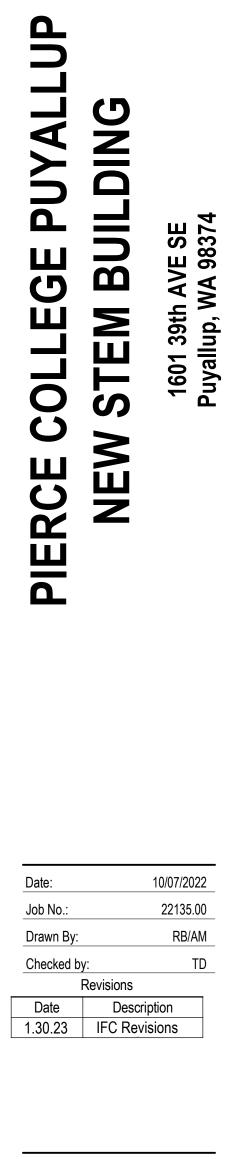


EXTERIOR METAL STUD WALL NOTES: 1. FOR TYPICAL METAL STUD DETAILS SEE SHEETS S023 & S024

- WALL STUDS ARE 800S162-54 @ 16"oc, UNO
- FOR TYPICAL MASONRY VENEER DETAILS SEE SHEET S022 PROVIDE LOOSE STEEL LINTEL ANGLES PER 5/S022 WHERE REQUIRED
- SEE GENERAL NOTES FOR ADDITIONAL METAL STUD REQUIREMENTS VERIFY ALL OPENING SIZES & LOCATIONS WITH ARCHITECTURAL
- DRAWINGS AND MEP SUBCONTRACTORS PRIOR TO CONSTRUCTION 7. TOP OF PARAPET (TOP) IS TOP OF METAL STUD FRAMING

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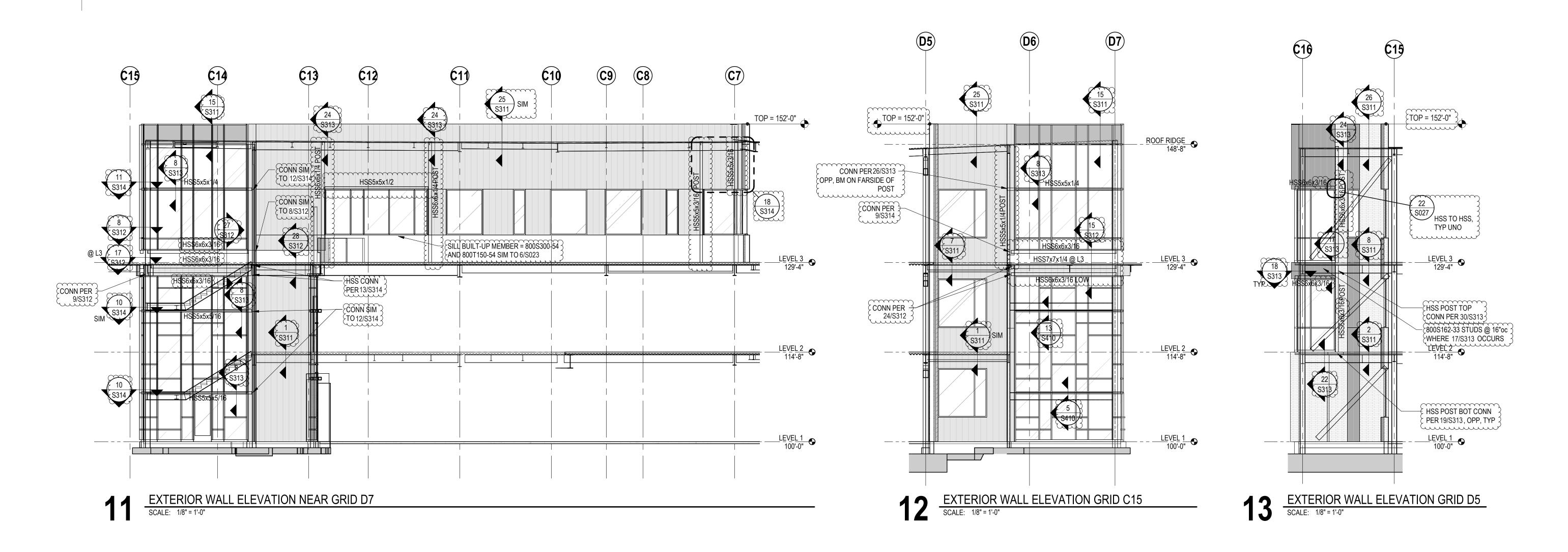


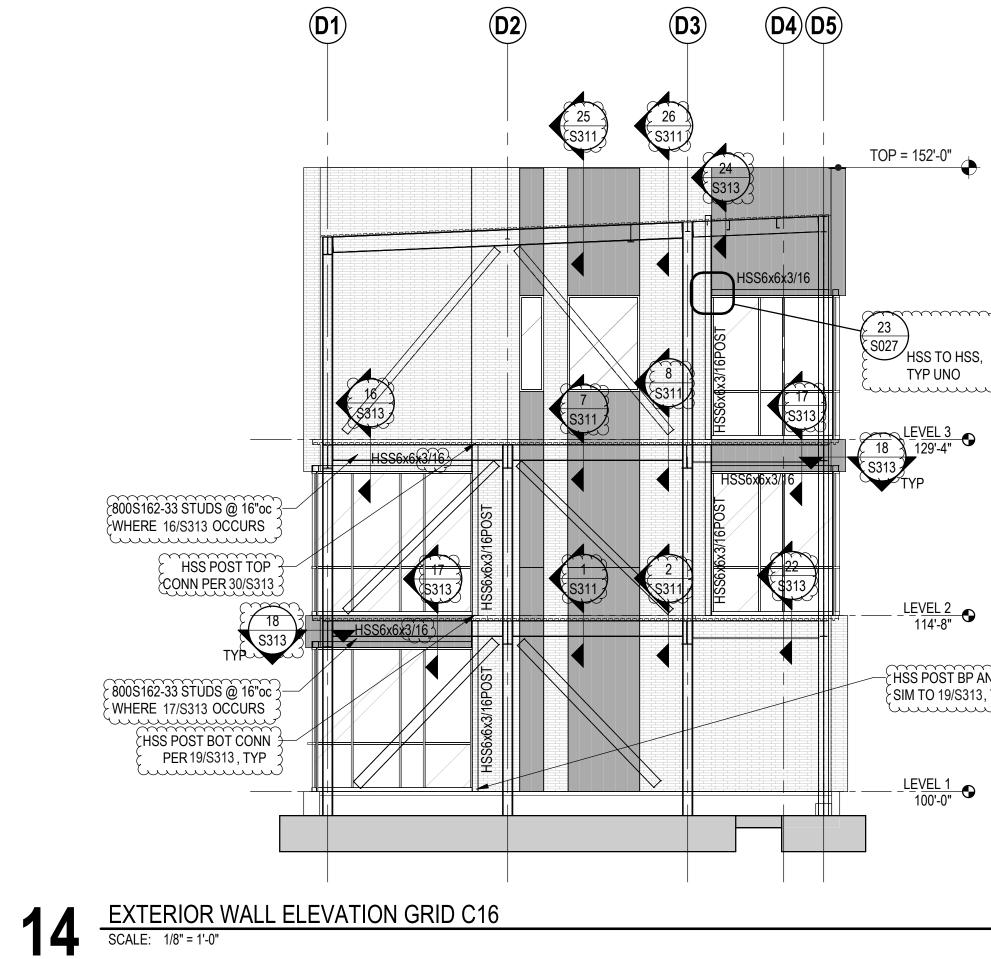


S204

EXTERIOR WALL

ELEVATIONS

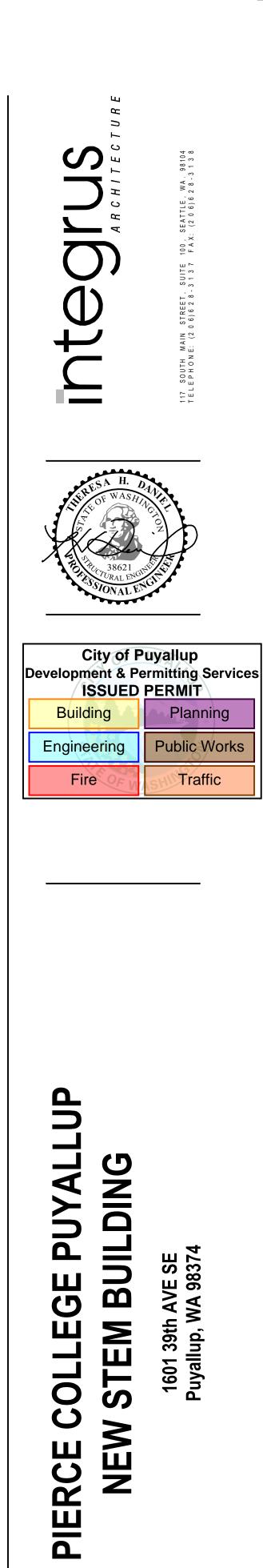


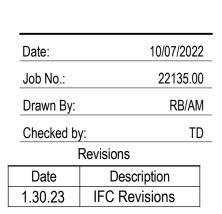


EXTERIOR METAL STUD WALL NOTES: 1. FOR TYPICAL METAL STUD DETAILS SEE SHEETS S023 & S024

- WALL STUDS ARE 800S162-54 @ 16"oc, UNO
- FOR TYPICAL MASONRY VENEER DETAILS SEE SHEET S022 PROVIDE LOOSE STEEL LINTEL ANGLES PER 5/S022 WHERE REQUIRED
- SEE GENERAL NOTES FOR ADDITIONAL METAL STUD REQUIREMENTS
- VERIFY ALL OPENING SIZES & LOCATIONS WITH ARCHITECTURAL DRAWINGS AND MEP SUBCONTRACTORS PRIOR TO CONSTRUCTION
 TOP OF PARAPET (TOP) IS TOP OF METAL STUD FRAMING

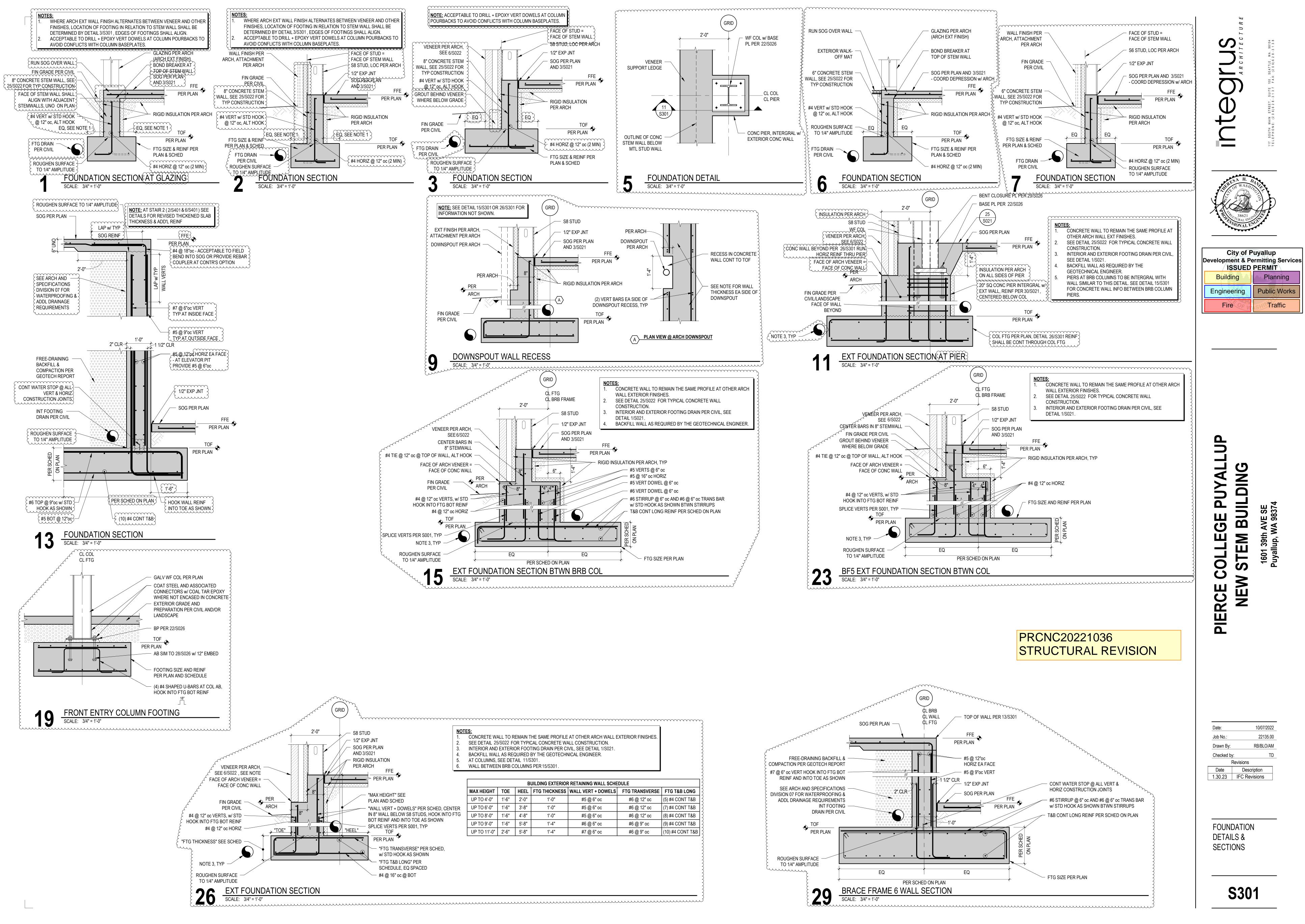
PRCNC20221036 STRUCTURAL REVISION



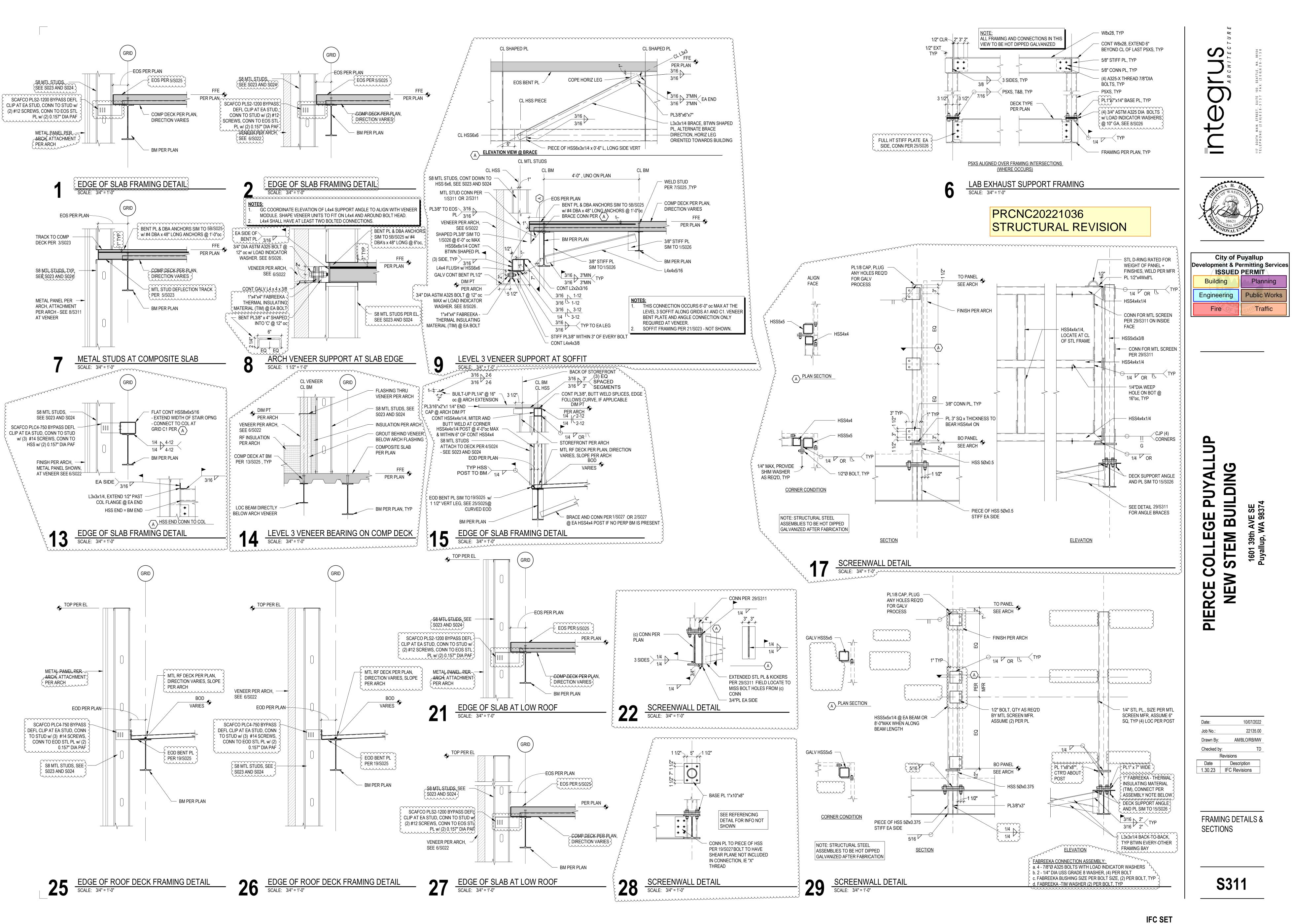


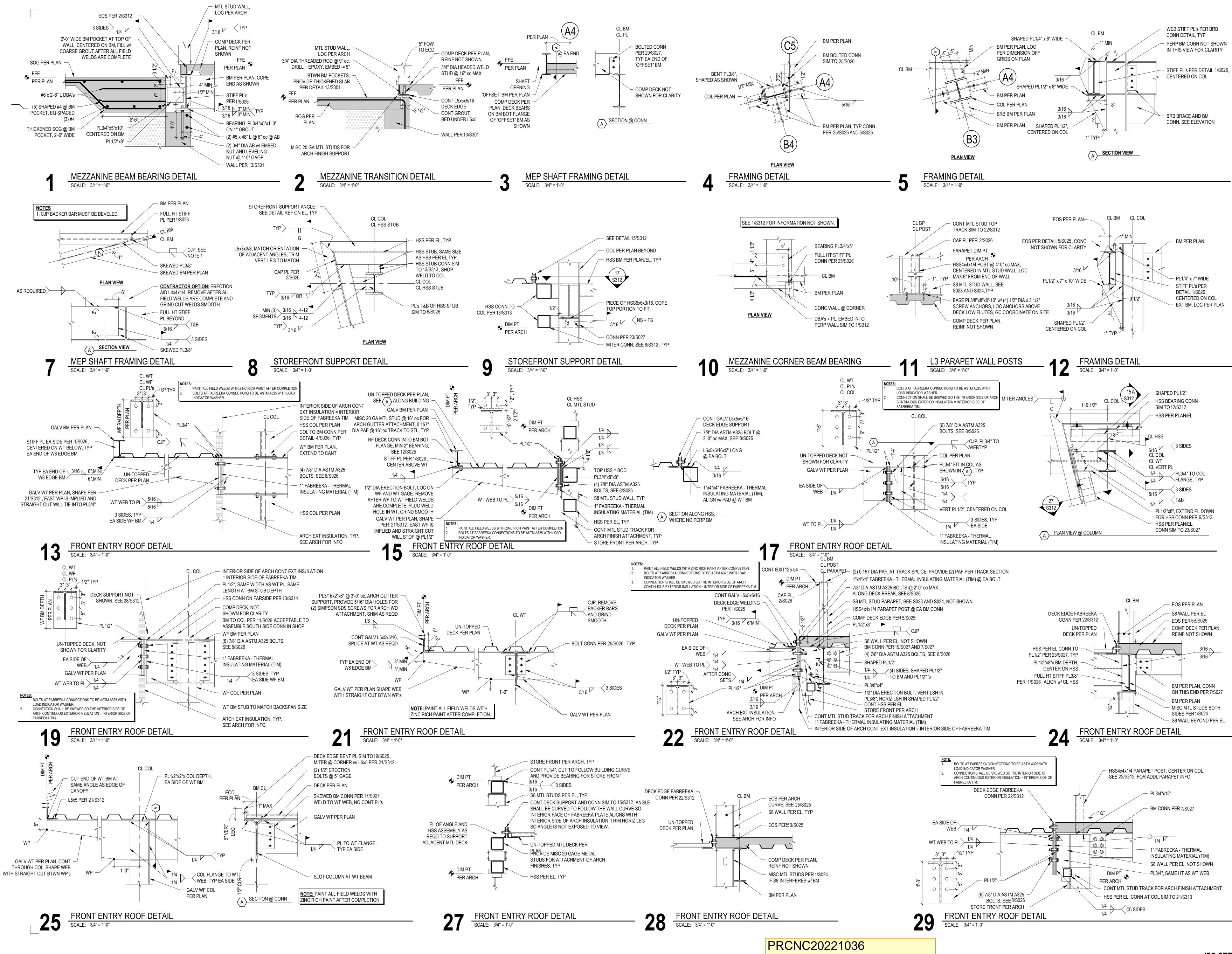




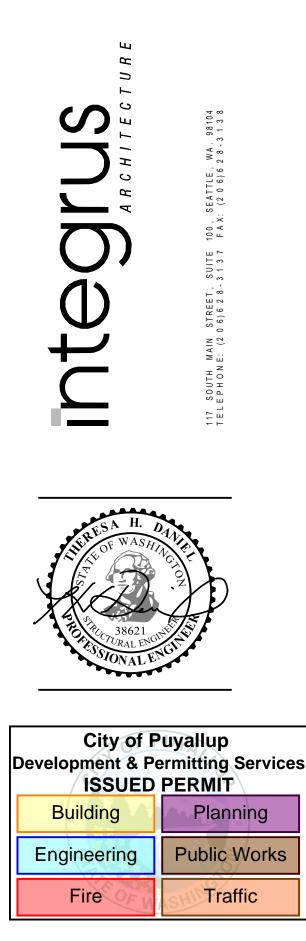


| UD NOTES: XP JNT 1. CONCRETE WALL TO REMAIN THE SAME PROFILE AT OTHER ARCH WALL EXTERIOR FINISHES. PER PLAN 2. SEE DETAIL 25/S022 FOR TYPICAL CONCRETE WALL CONSTRUCTION. /S021 3. INTERIOR AND EXTERIOR FOOTING DRAIN PER CIVIL, SEE DETAIL 1/S021. INSULATION 4. BACKFILL WALL AS REQUIRED BY THE GEOTECHNICAL ENGINEER. RCH 5. AT COLUMNS, SEE DETAIL 11/S301. FFE 6. WALL BETWEEN BRB COLUMNS PER 15/S301. | | | | | | | |
|--|-----------------|-------|-------|-------|--------------------|----------------|-----------------|
| PER PLAN BUILDING EXTERIOR RETAINING WALL SCHEDULE | | | | | | | |
| | MAX HEIGHT | TOE | HEEL | | WALL VERT + DOWELS | FTG TRANSVERSE | FTG T&B LONG |
| "MAX HEIGHT" SEE PLAN AND SCHED | UP TO 4'-0" | 1'-6" | 2'-0" | 1'-0" | #5 @ 6" oc | #6 @ 12" oc | (5) #4 CONT T&B |
| - "WALL VERT + DOWELS" PER SCHED, CENT | TER UP TO 6'-0" | 1'-6" | 3'-8" | 1'-0" | #5 @ 6" oc | #6 @ 12" oc | (7) #4 CONT T&B |
| IN 8" WALL BELOW S8 STUDS, HOOK INTO F BOT REINF AND INTO TOE AS SHOWN | TG UP TO 8'-0" | 1'-6" | 4'-8" | 1'-0" | #5 @ 6" oc | #6 @ 12" oc | (8) #4 CONT T&B |
| - SPLICE VERTS PER S001, TYP | UP TO 9'-0" | 1'-6" | 5'-8" | 1'-4" | #6 @ 6" oc | #6 @ 9" oc | (9) #4 CONT T&B |
| | UP TO 11'-0" | 2'-6" | 5'-8" | 1'-4" | #7 @ 6" oc | #6 @ 9" oc | (10) #4 CONT T& |
| PER PLAN "FTG TRANSVERSE" PER SCHED, w/ STD HOOK AS SHOWN "FTG T&B LONG" PER SCHEDULE, EQ SPACED #4 @ 16" oc @ BOT | | | | | | | |





STRUCTURAL REVISION

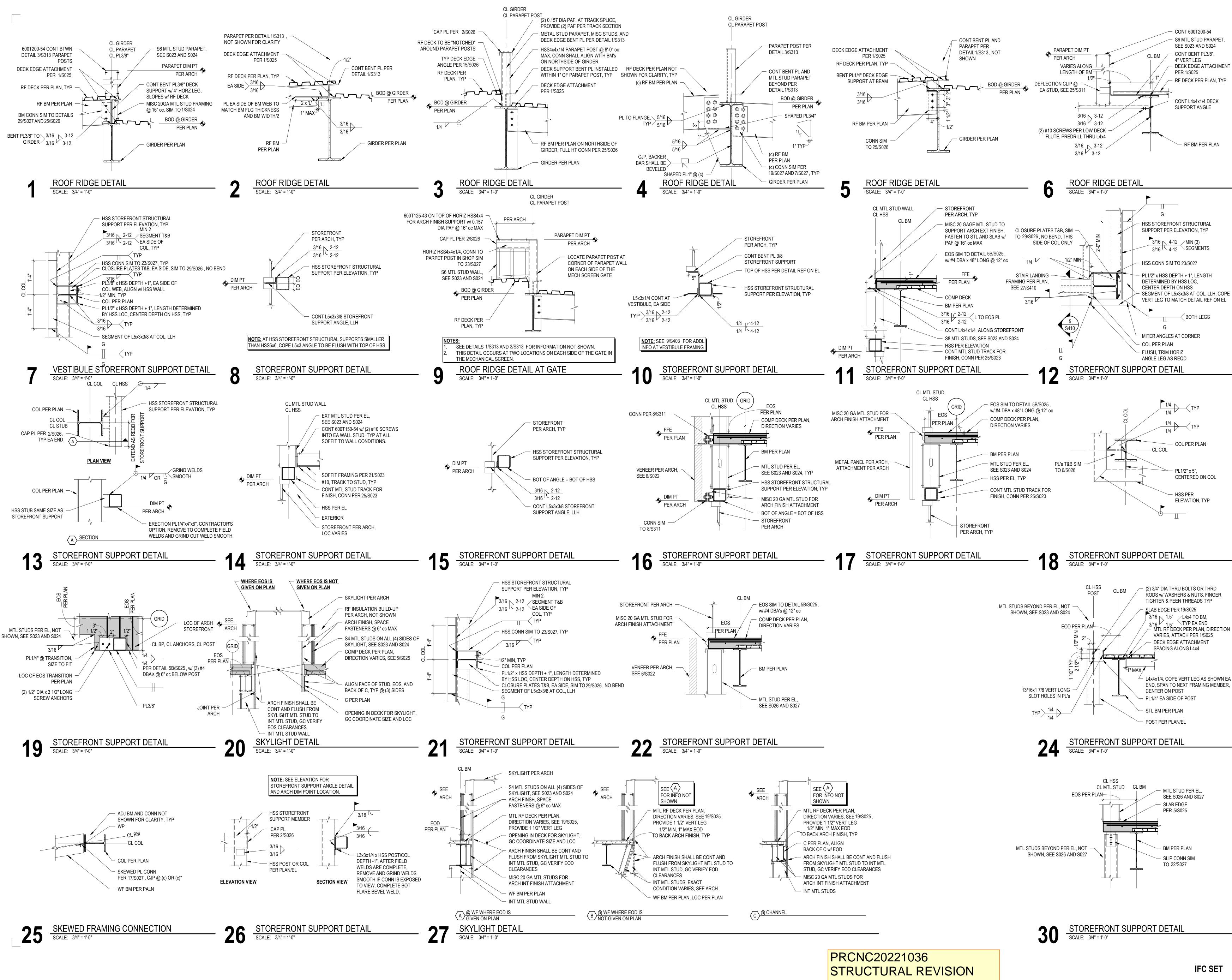


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10/07/2022 22135.00 Drawn E Checked by Revisions Date Description 1.30.23 IFC Revisions

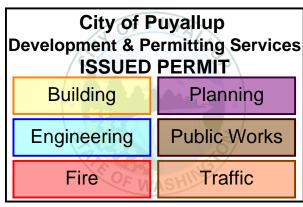
FRAMING DETAILS & SECTIONS

> \sim **S**312 ****







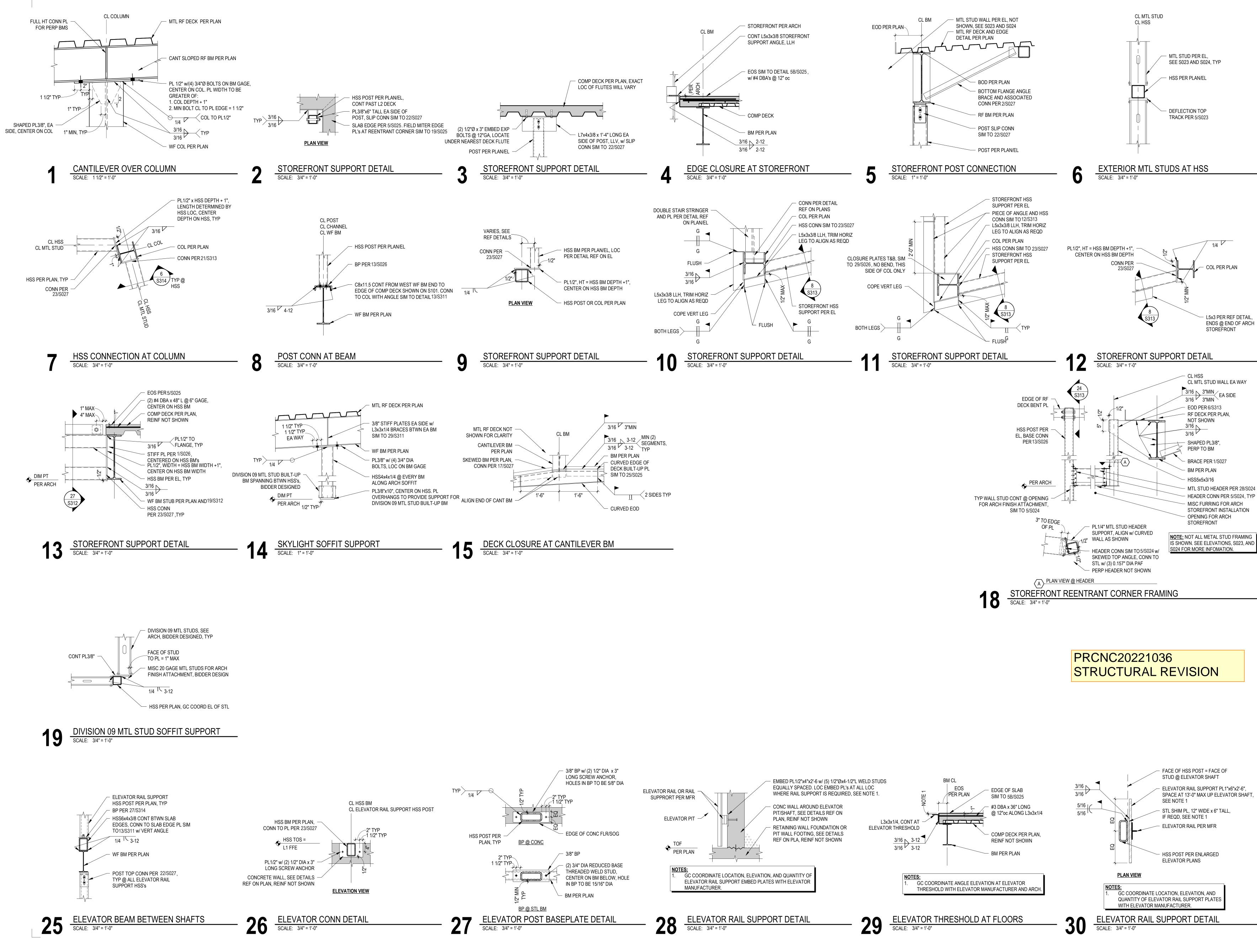


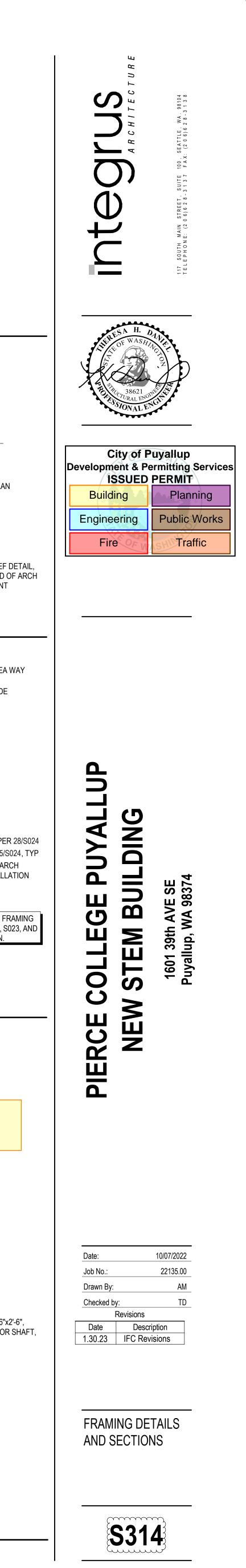


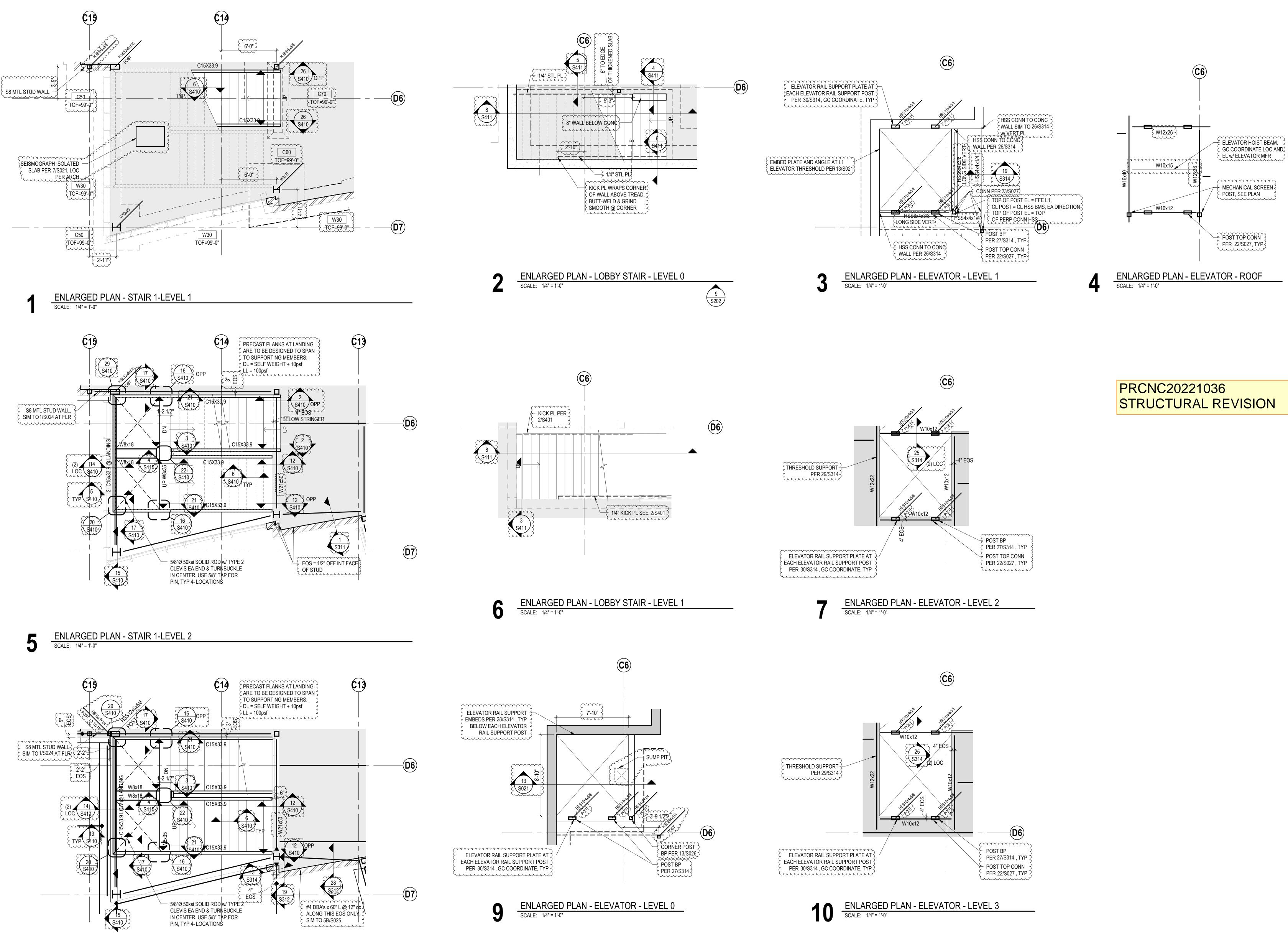
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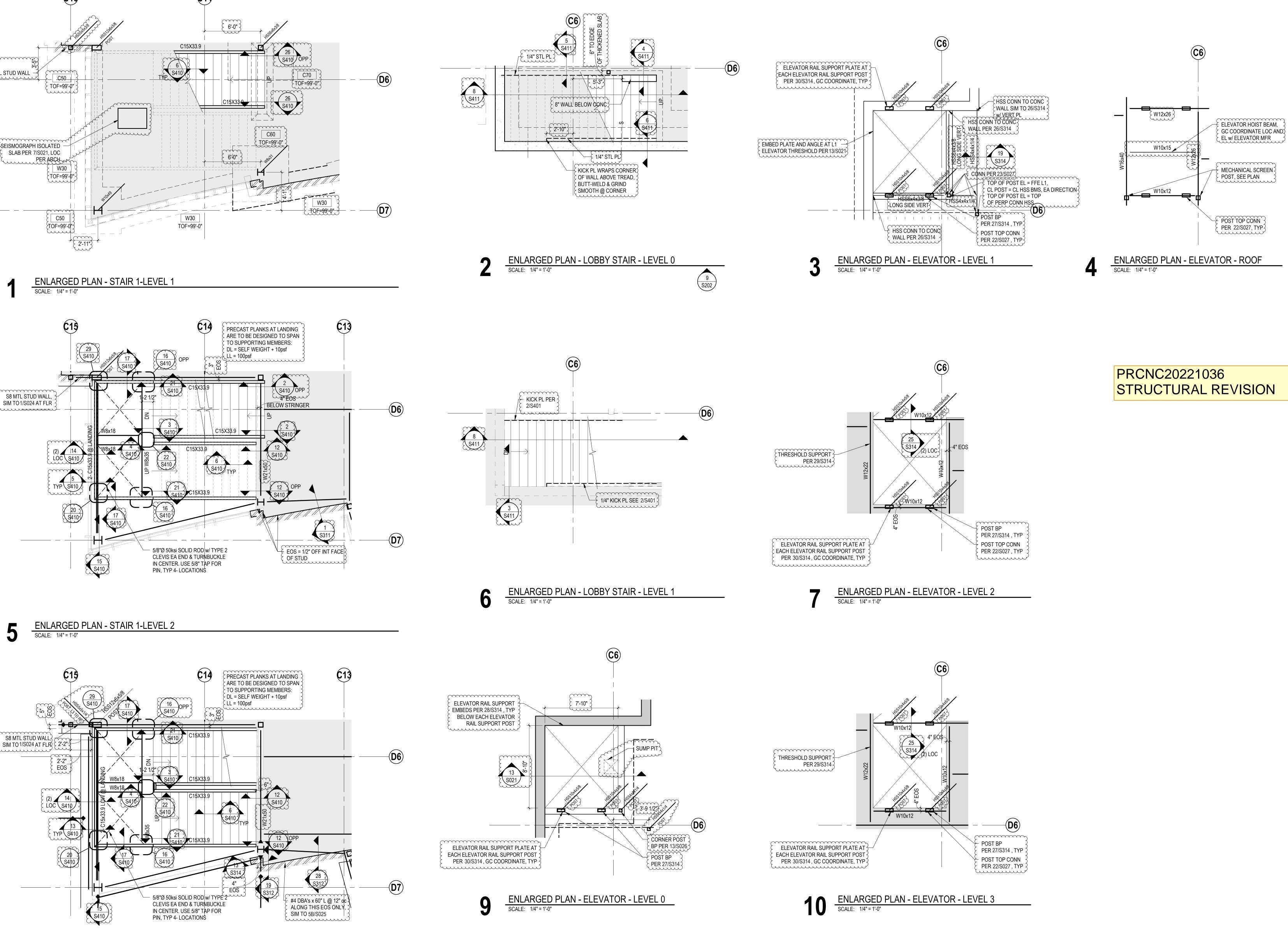










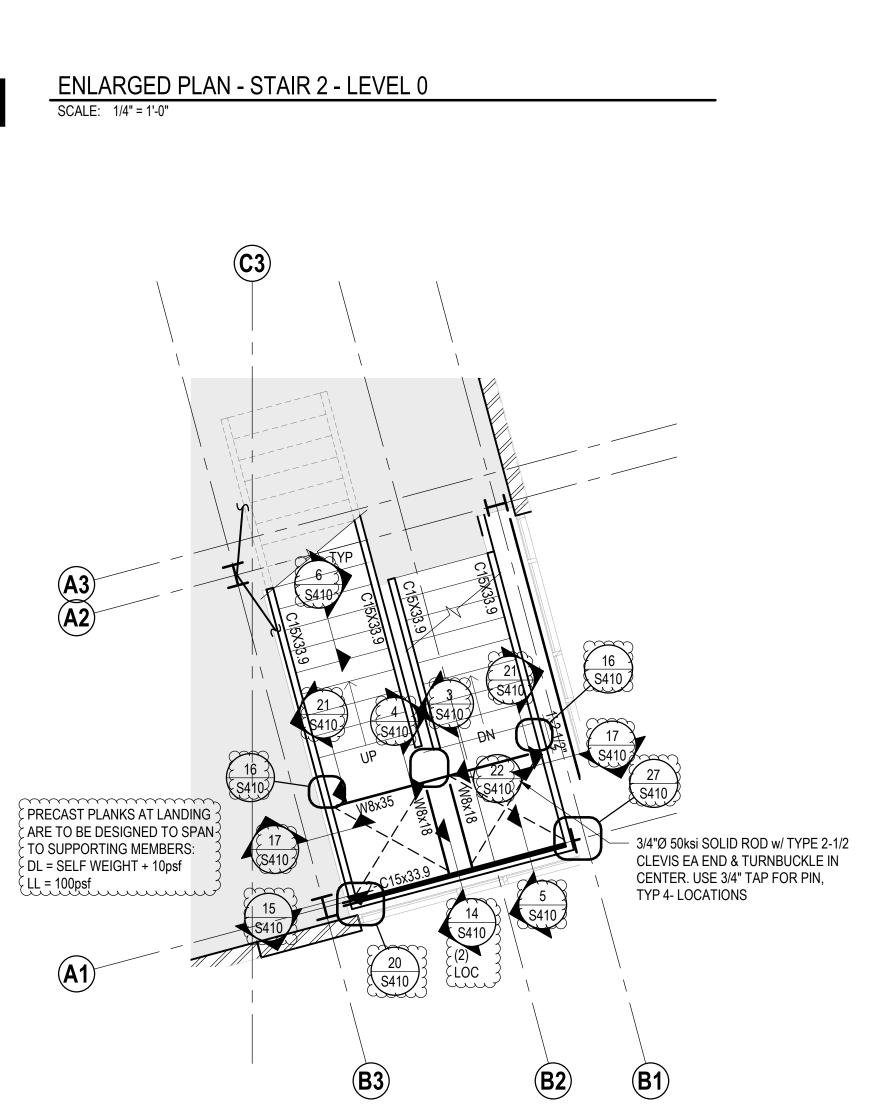


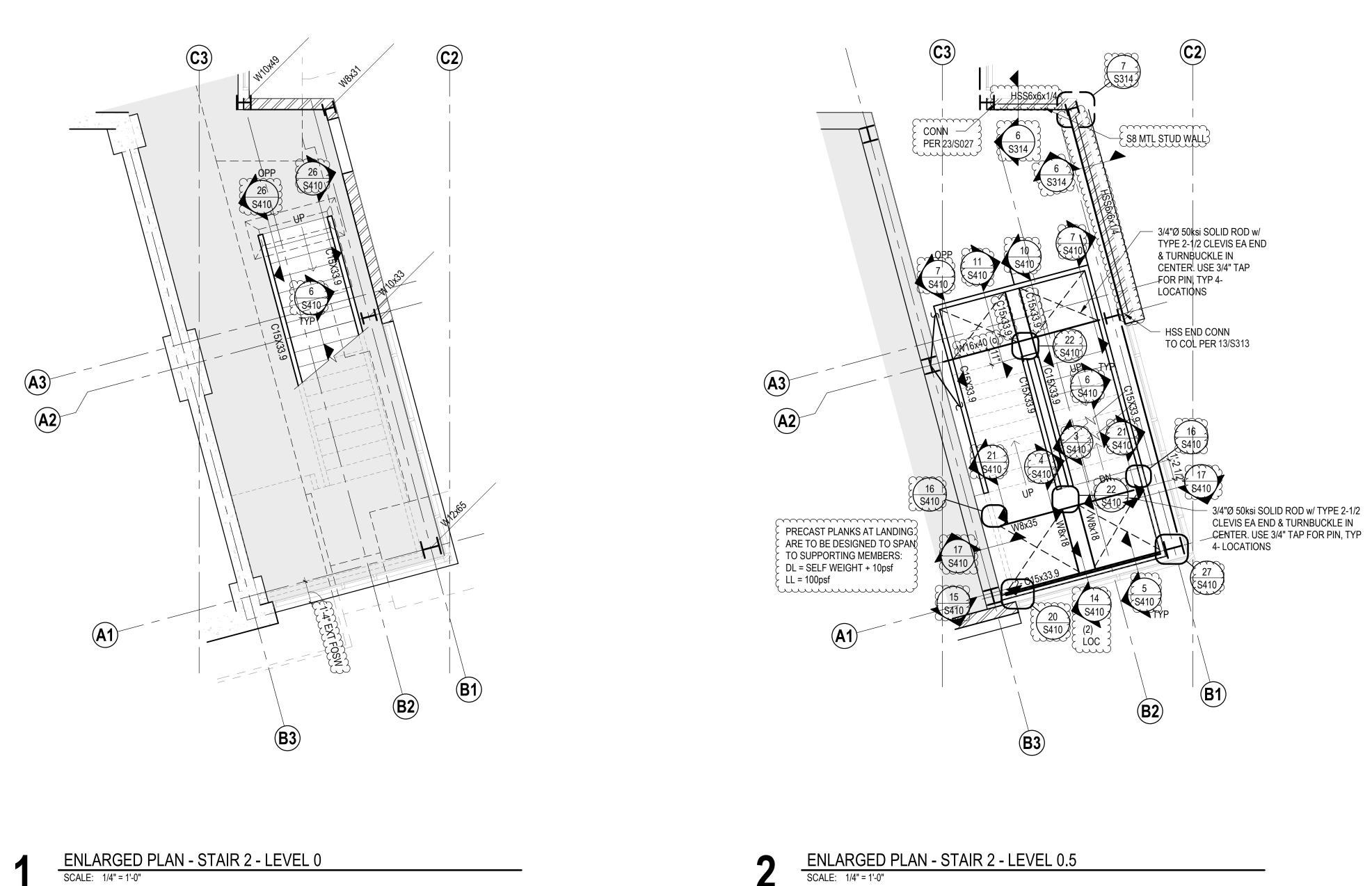
ENLARGED PLAN - STAIR 1-LEVEL 3 SCALE: 1/4" = 1'-0"

8

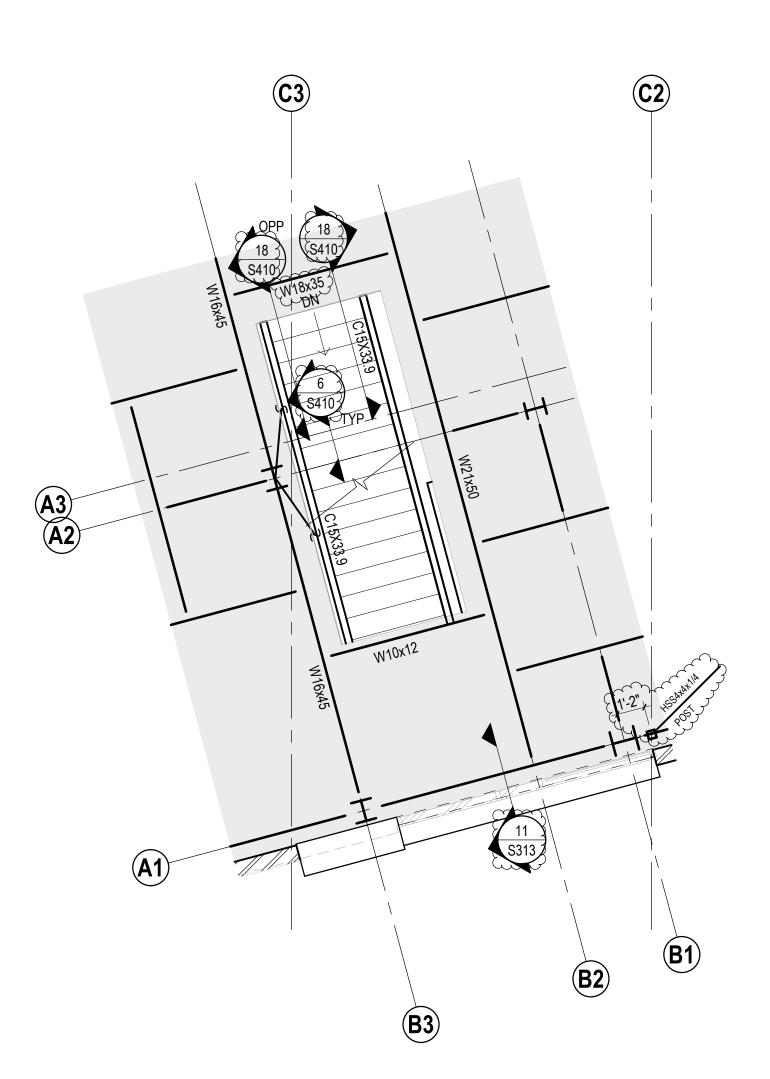


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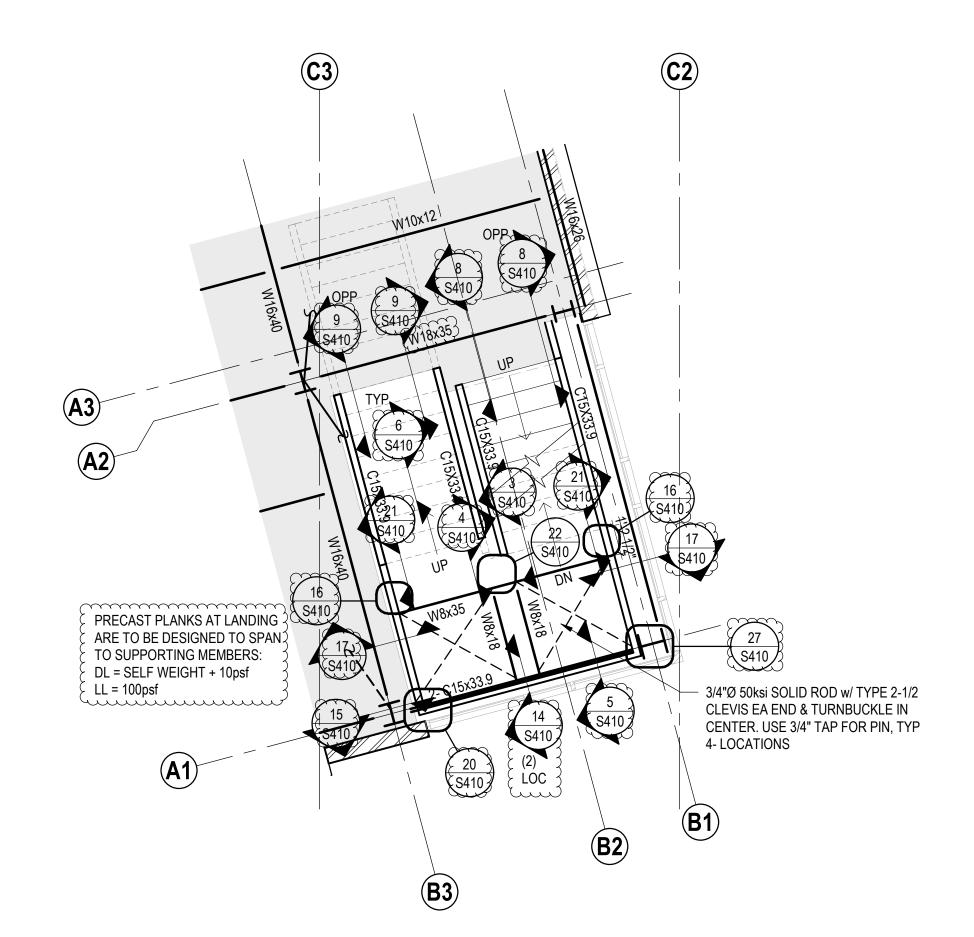


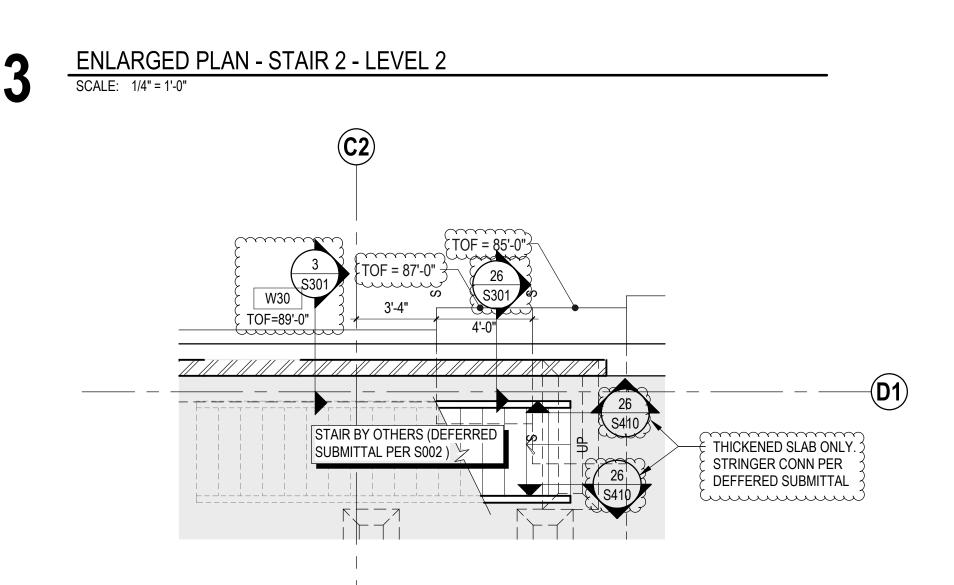


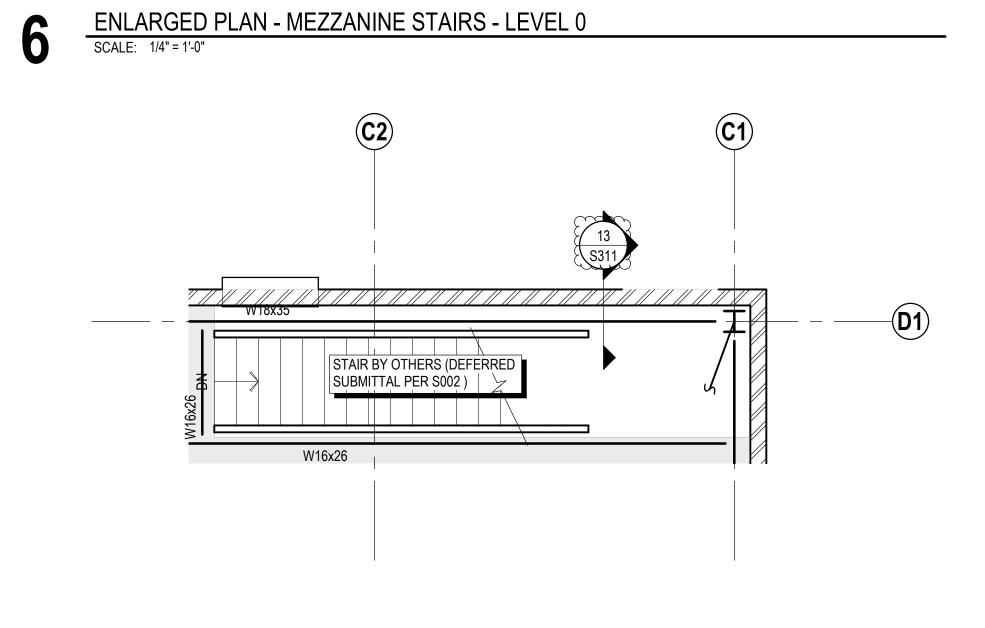




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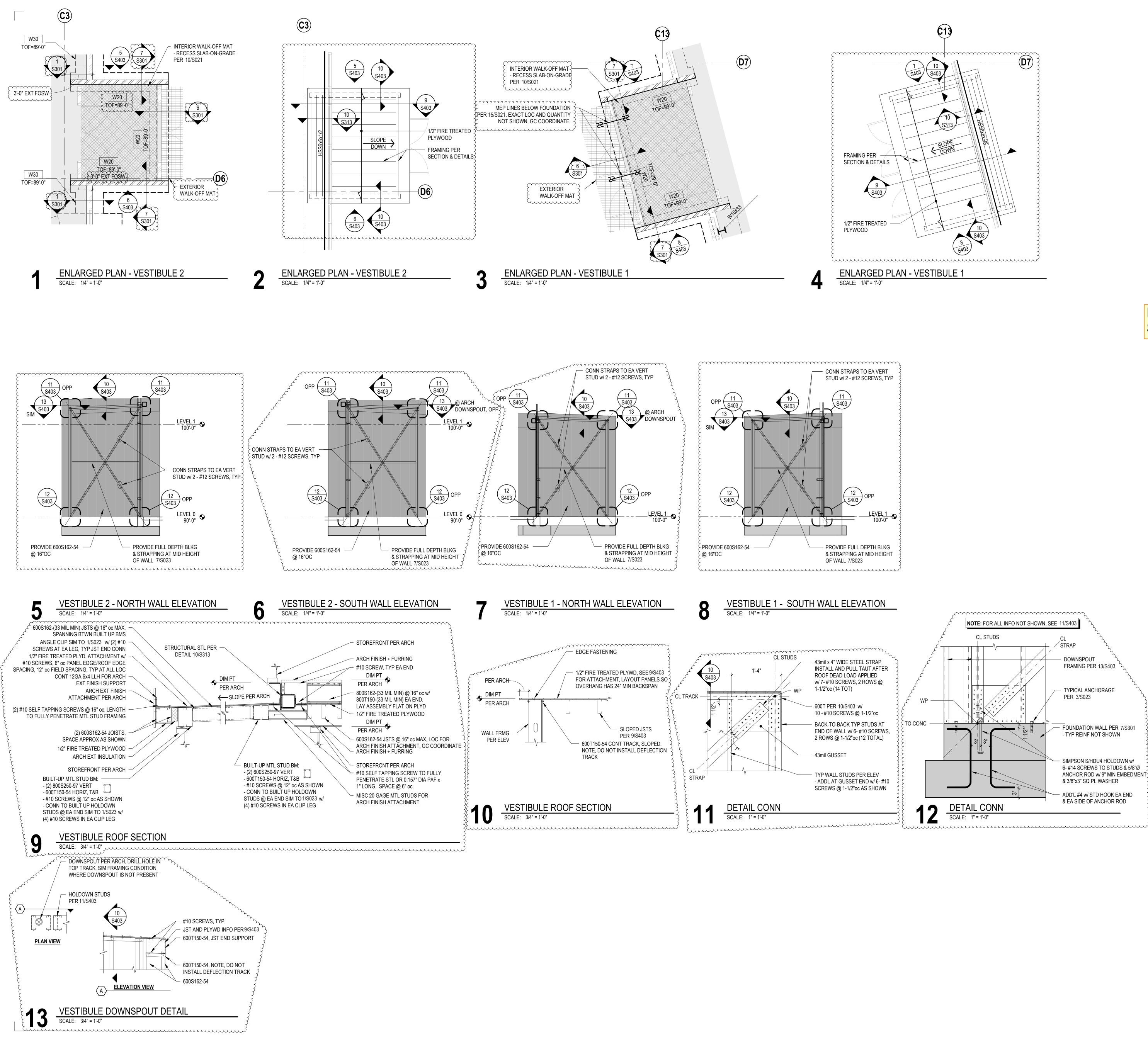


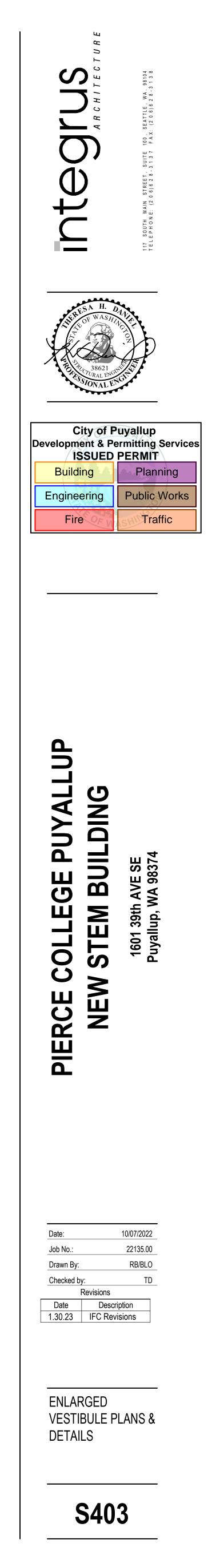


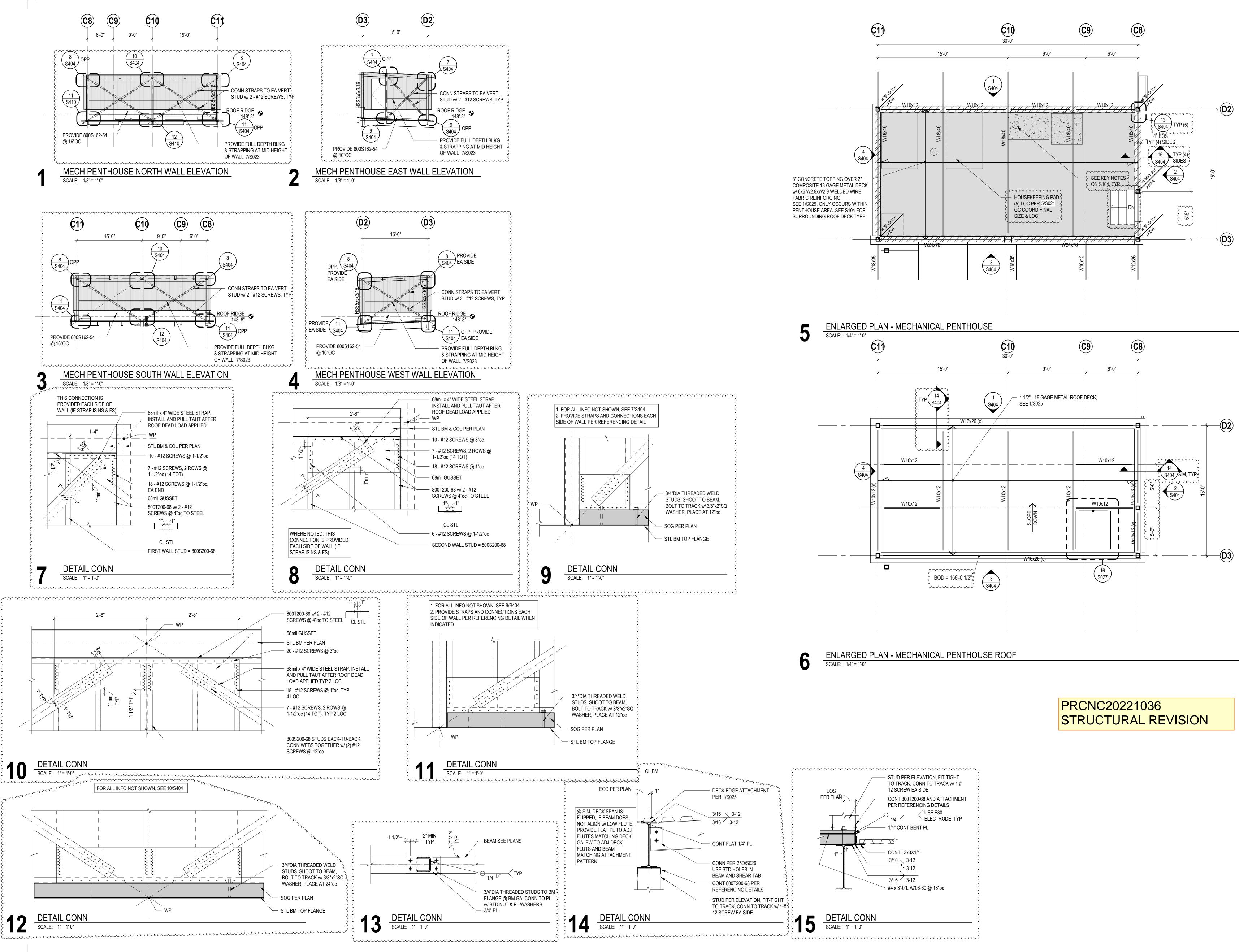


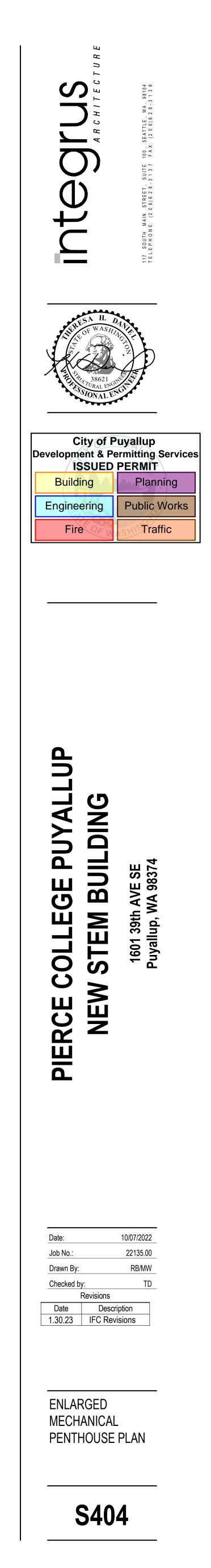
ENLARGED PLAN - MEZZANINE STAIRS - LEVEL 1 SCALE: 1/4" = 1'-0"

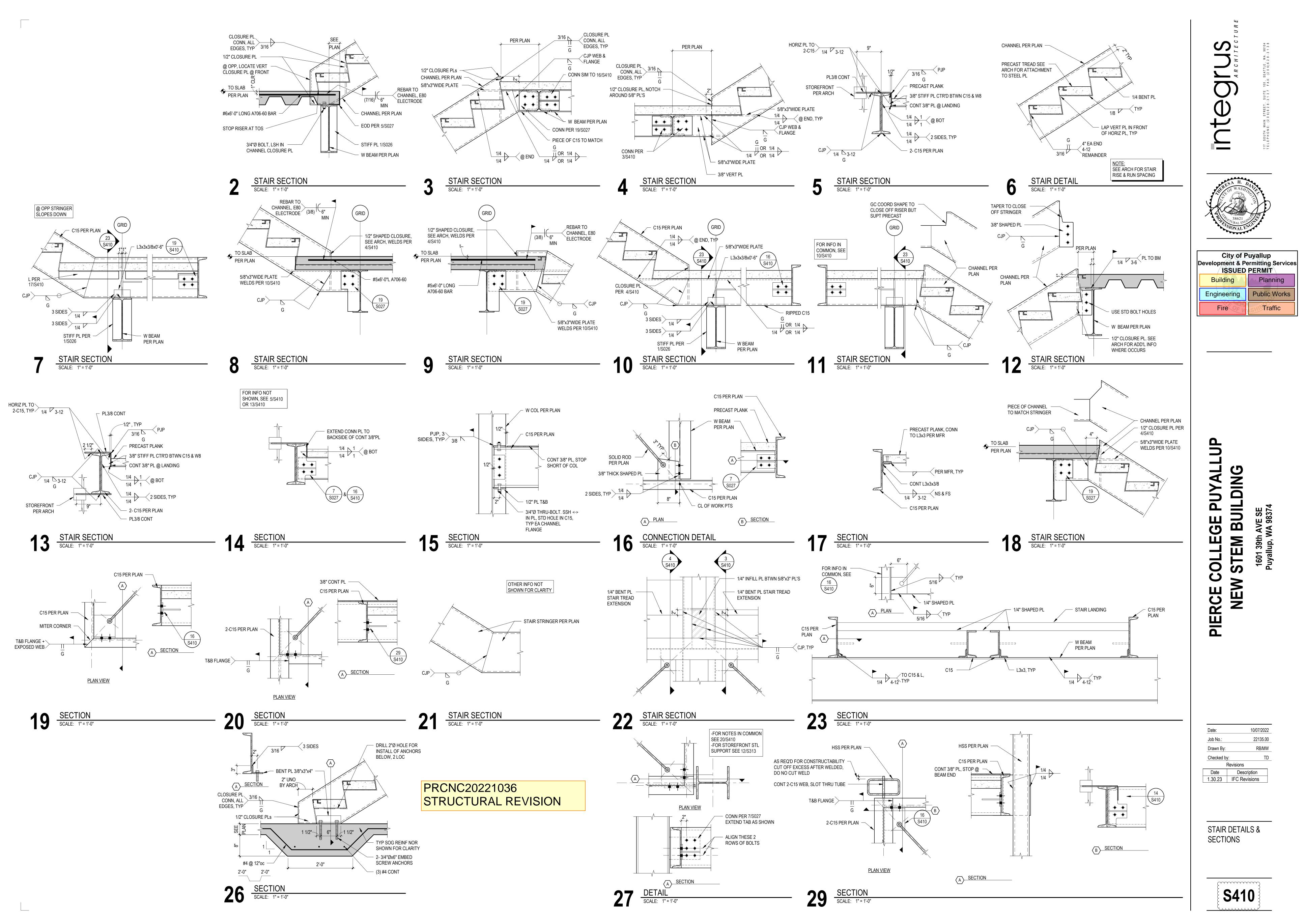


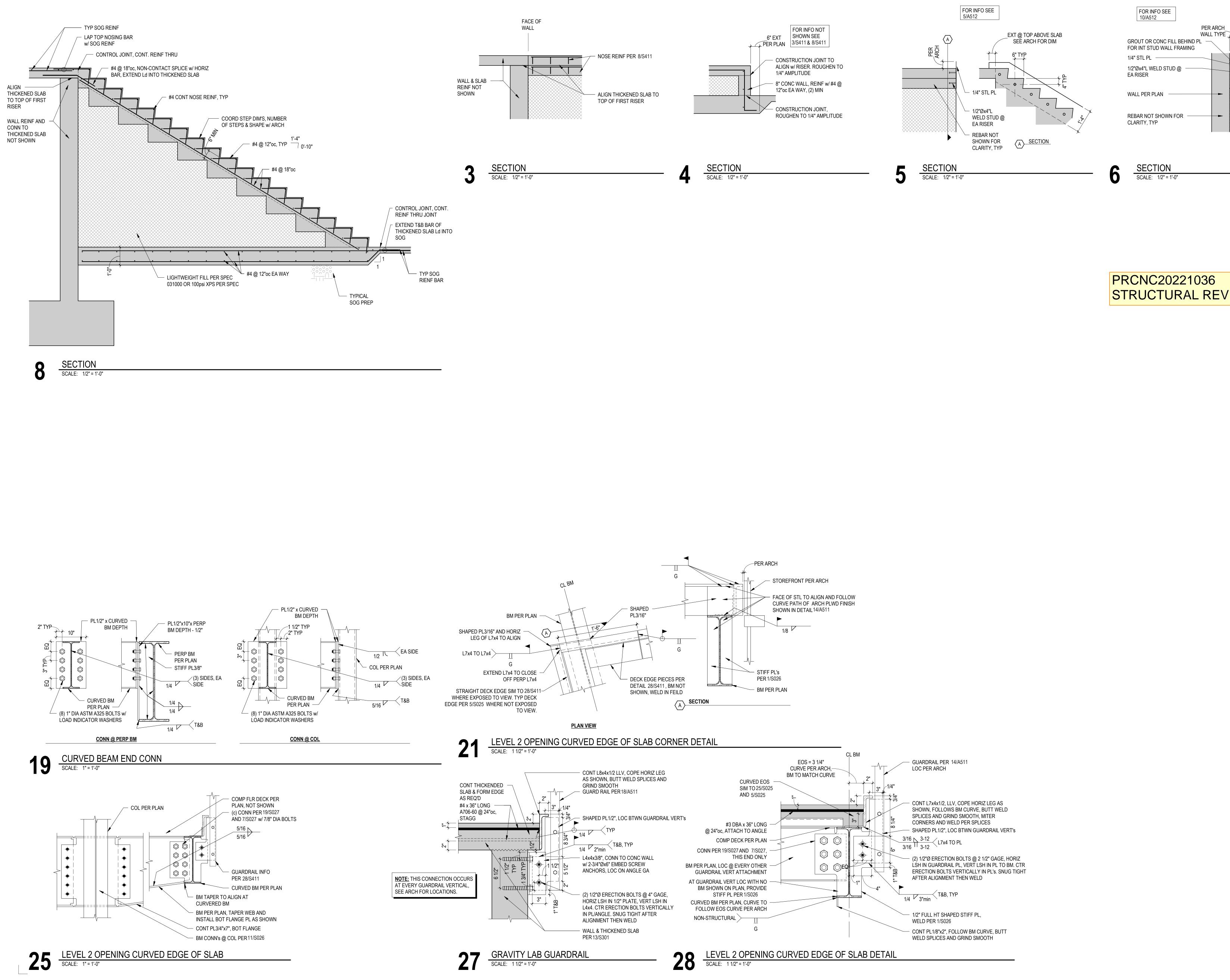


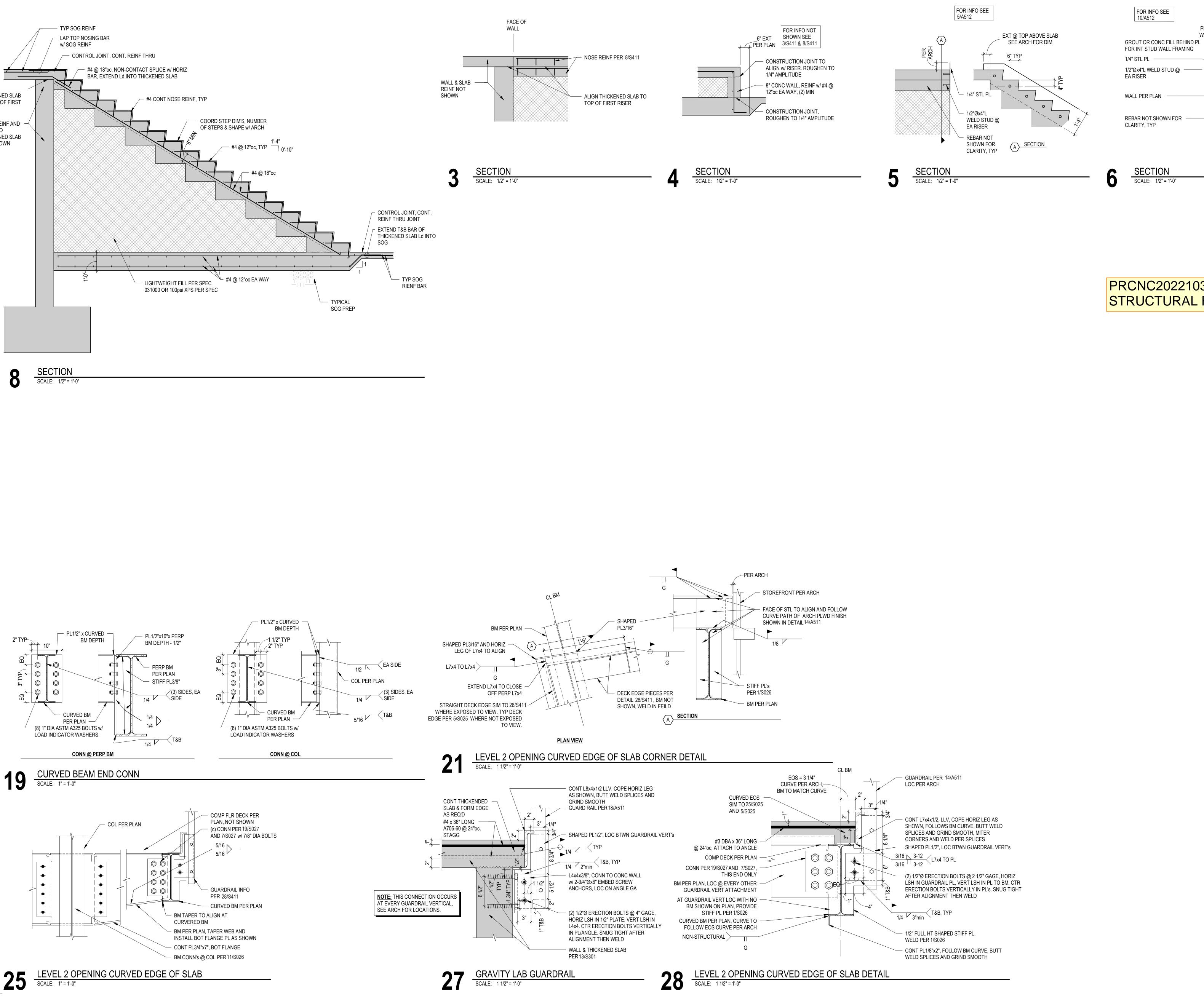






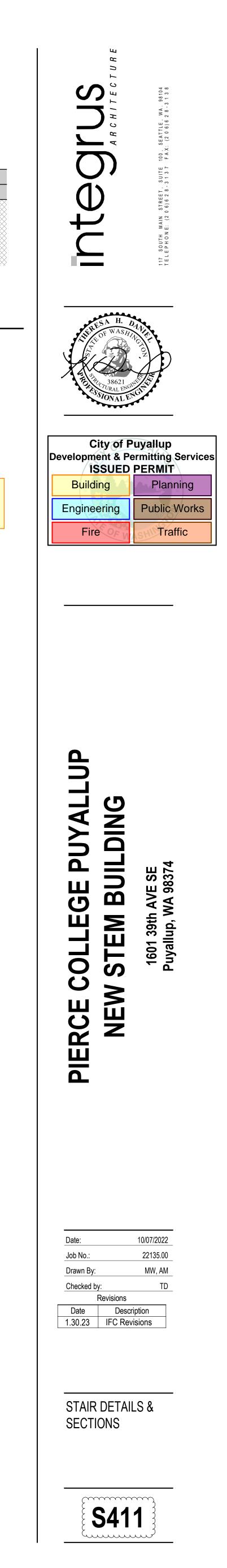


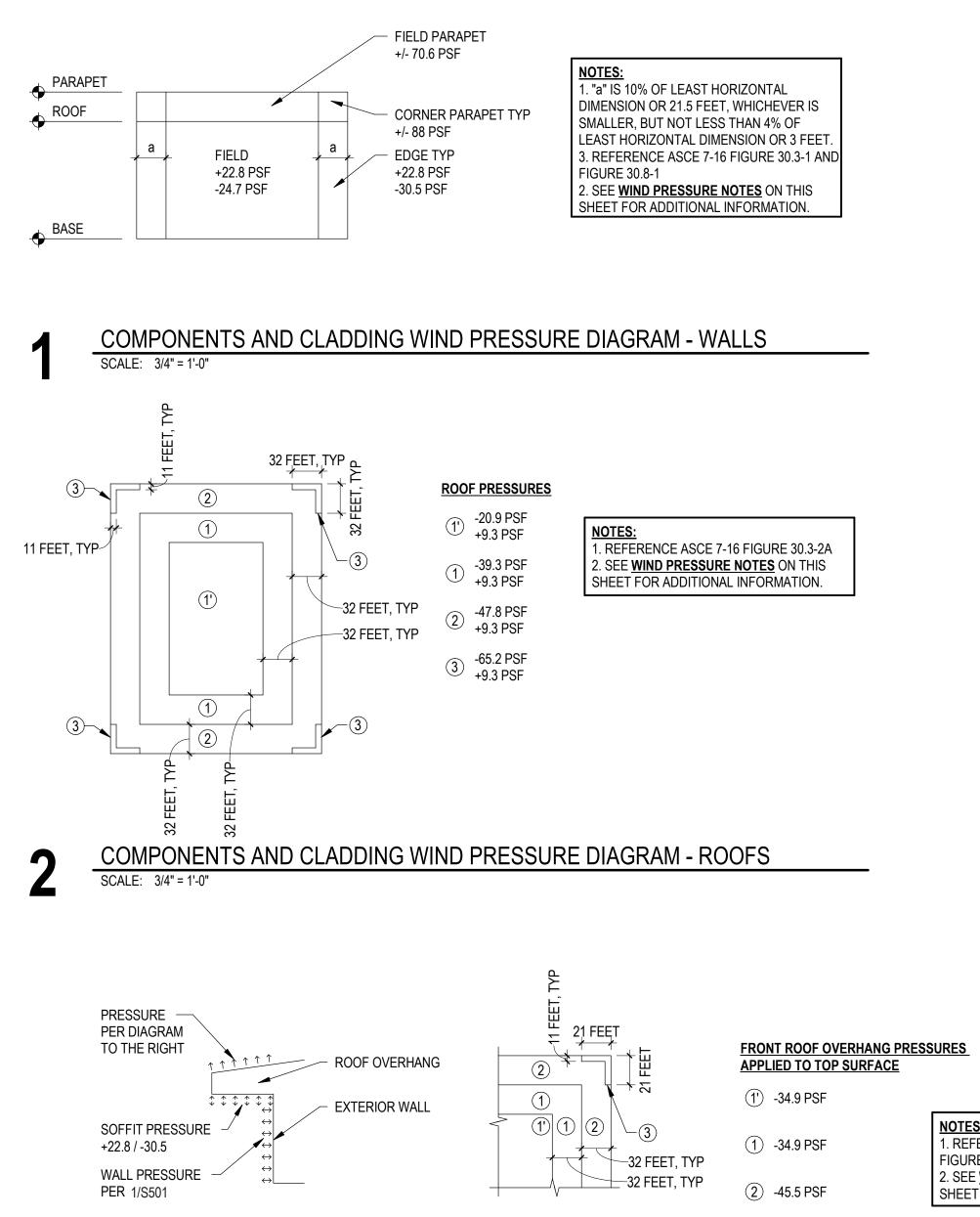




PRCNC20221036 STRUCTURAL REVISION

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3 -59.3 PSF

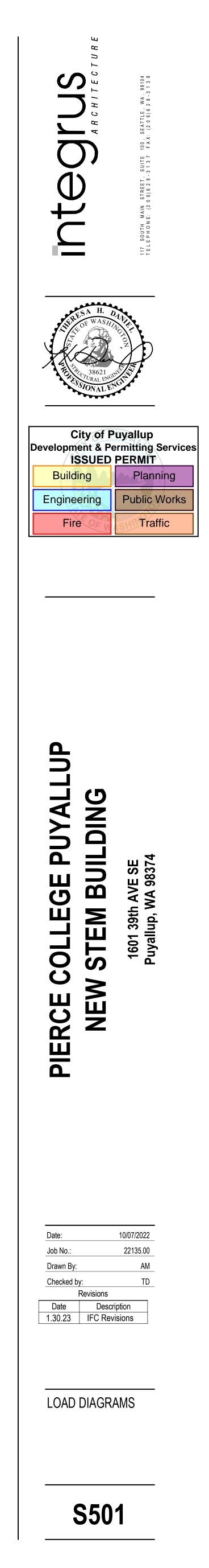
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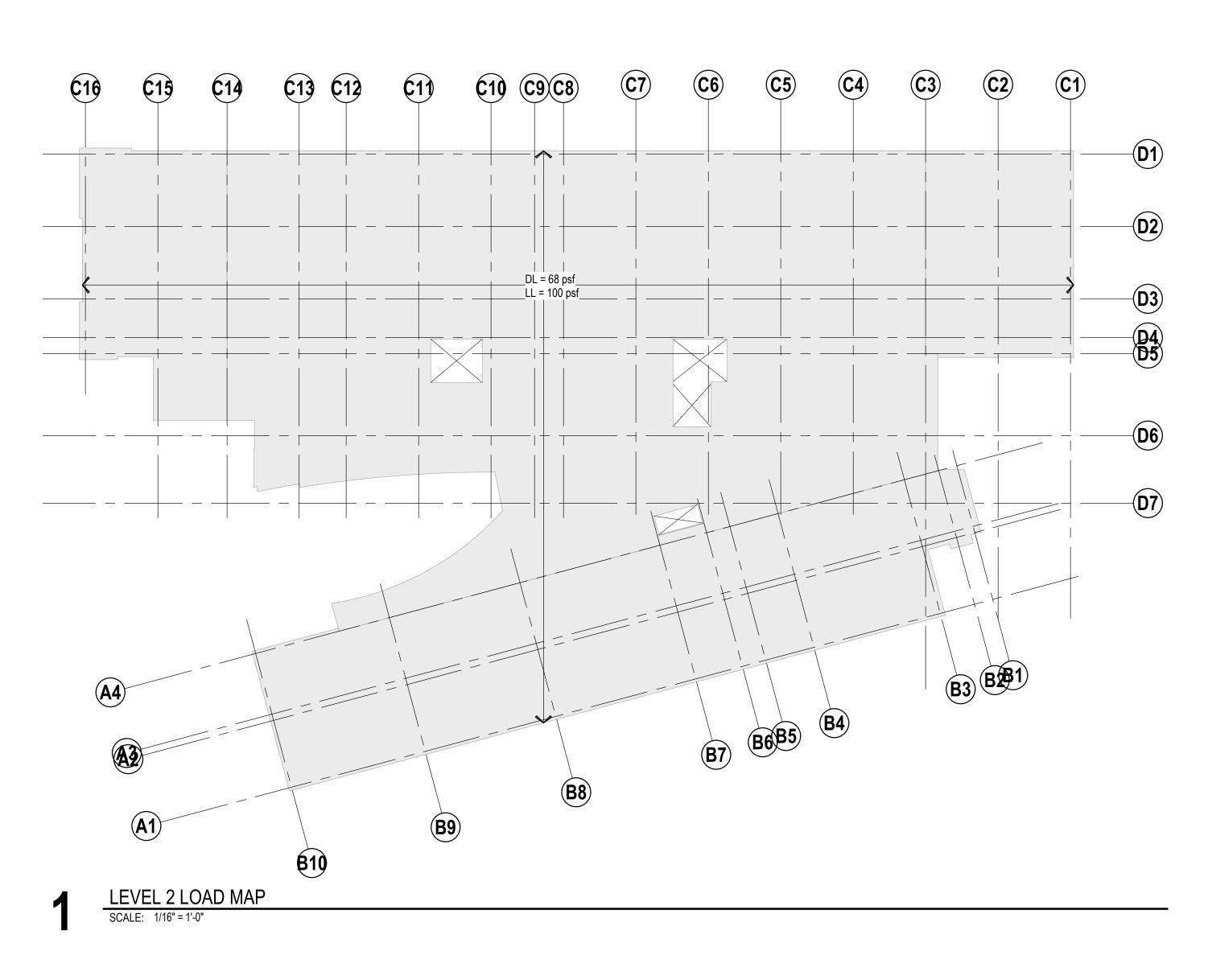
COMPONENTS AND CLADDING WIND PRESSURE DIAGRAM - FRONT ROOF OVERHANG SCALE: 3/4" = 1'-0"

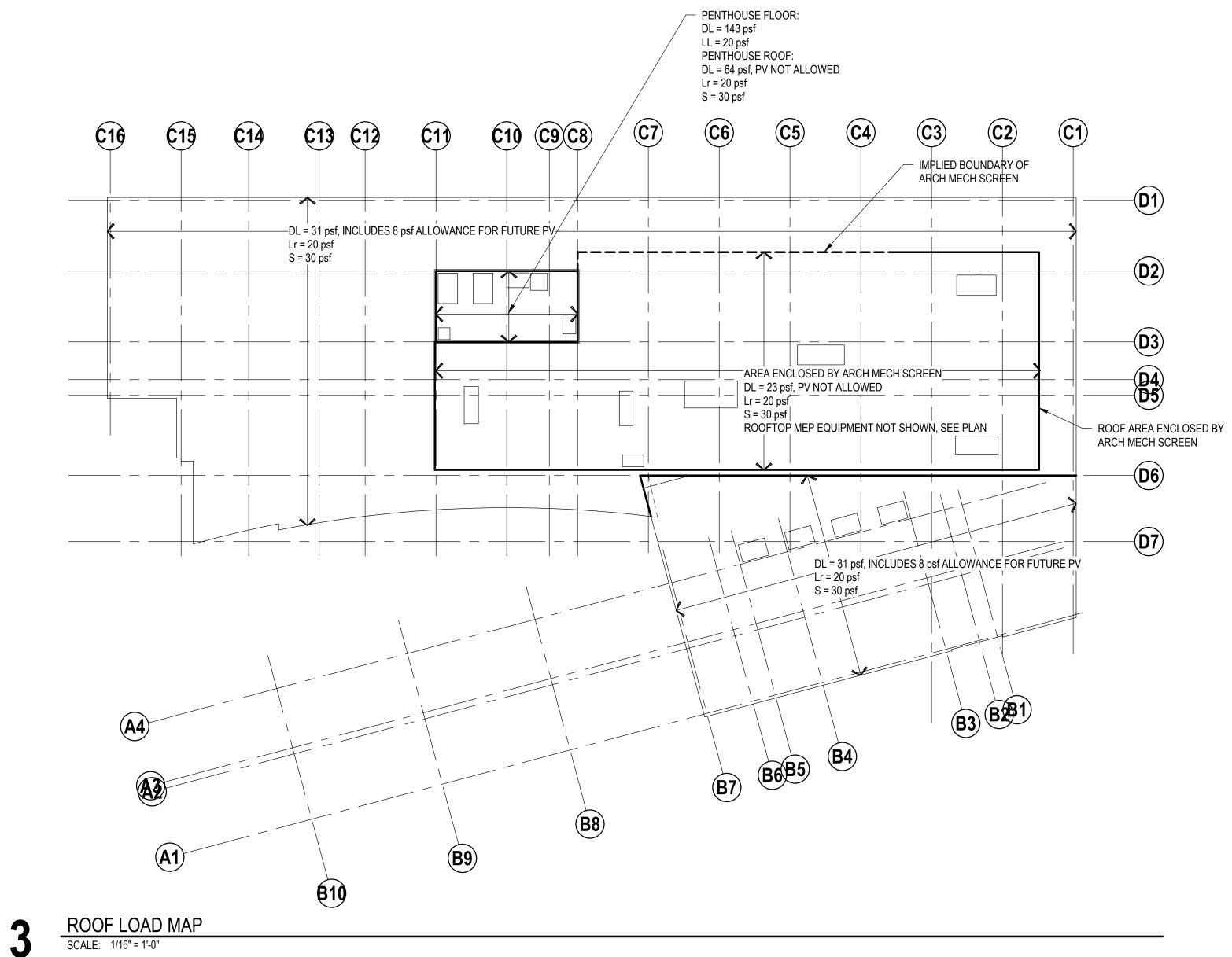
WIND PRESSURE NOTES:

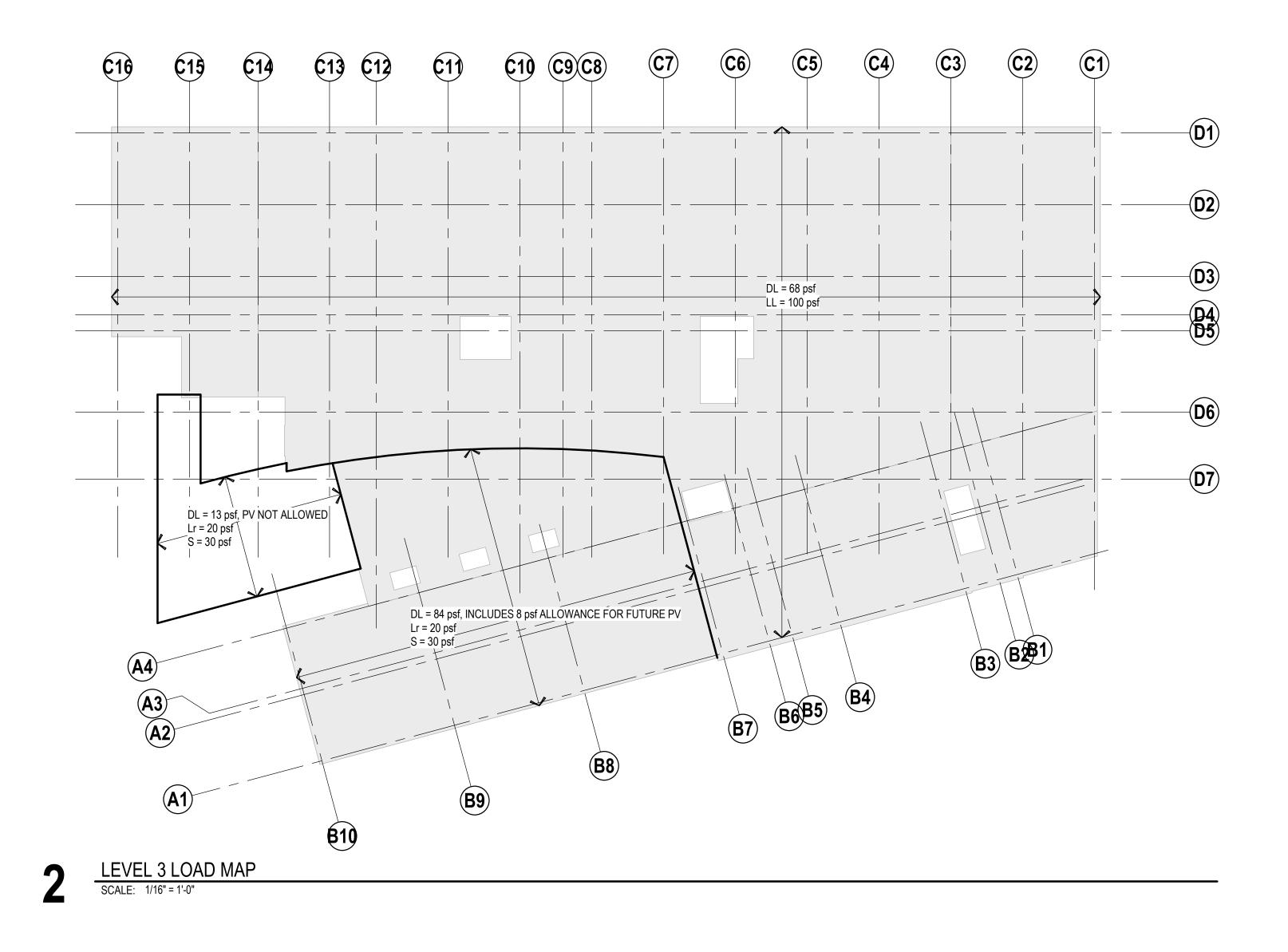
- 1. WIND PRESSURES SHOWN ARE DETERMINED PER IBC 2018 SECTION 1609, ASCE 7-16 CHAPTER 26, AND ASCE 7-16 CHAPTER 30 PART 1. ROOF WIND UPLIFT PRESSURES ARE GROSS (WEIGHT OF MATERIAL HAS NOT BEEN DEDUCTED). WIND PRESSURES GIVEN ARE ULTIMATE.
- PRESSURES SHOWN ARE CALCULATED USING BUILDING EFFECTIVE AREA FOR WORST CASE. EXTERIOR COMPONENTS AND CLADDING SHALL BE DESIGNED FOR WORST CASE WIND LOAD PRESSURES SHOWN.
- ALTERNATIVELY, WIND LOADS MAY BE DETERMINED DIRECTLY FROM THE PROVISIONS OF THE IBC 2018/ ASCE 7-16 SECTIONS NOTED ABOVE USING THE WIND LOAD CRITERIA IN THE GENERAL NOTES.
- 4. INWARD PRESSURES ACT TOWARD THE BUILDING (POSITIVE), OUTWARD PRESSURES ACT AS A SUCTION ON THE BUILDING SURFACE (NEGATIVE).

NOTES: 1. REFERENCE ASCE 7-16 FIGURE 30.9-1 AND FIGURE 30.3-2A WITH ASSOCIATED NOTES 2. SEE <u>WIND PRESSURE NOTES</u> ON THIS SHEET FOR ADDITIONAL INFORMATION.









LOAD MAP NOTES:

DL = DEAD LOAD LL = LIVE LOAD Lr = ROOF LIVE LOAD

- S = SNOW LOAD
- PV = FUTURE PHOTOVOLTAIC PANEL LOAD ALLOWANCE, NOTE 5
- SEE S001 FOR ADDITIONAL LOADS.
 SEE PLANS FOR MEP EQUIPMENT MAX WEIGHTS.
- SEE S501 FOR WIND LOAD DIAGRAMS. LIVE LOAD REDUCTION IS APPLIED AS ALLOWED BY THE REFERENCED CODE
- THE SHOWN PV PANEL LOAD ALLOWANCES ARE INCLUDED IN THE TOTAL DEAD LOAD SHOWN. 6. DEAD LOADS DO NOT INCLUDE SELF WEIGHT OF FLOOR/ROOF FRAMING MEMBERS.

