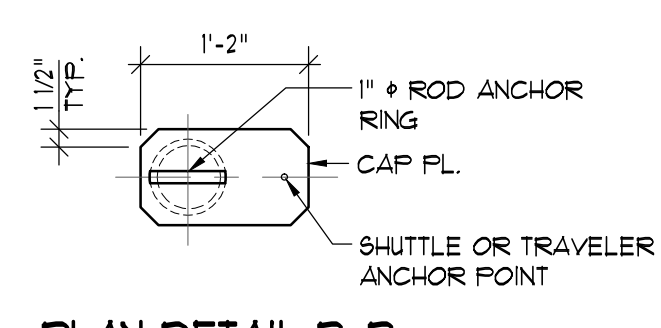
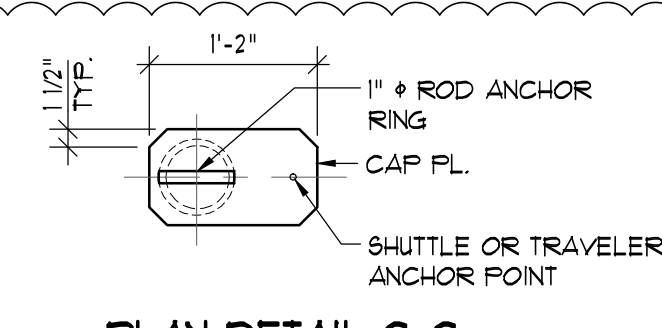


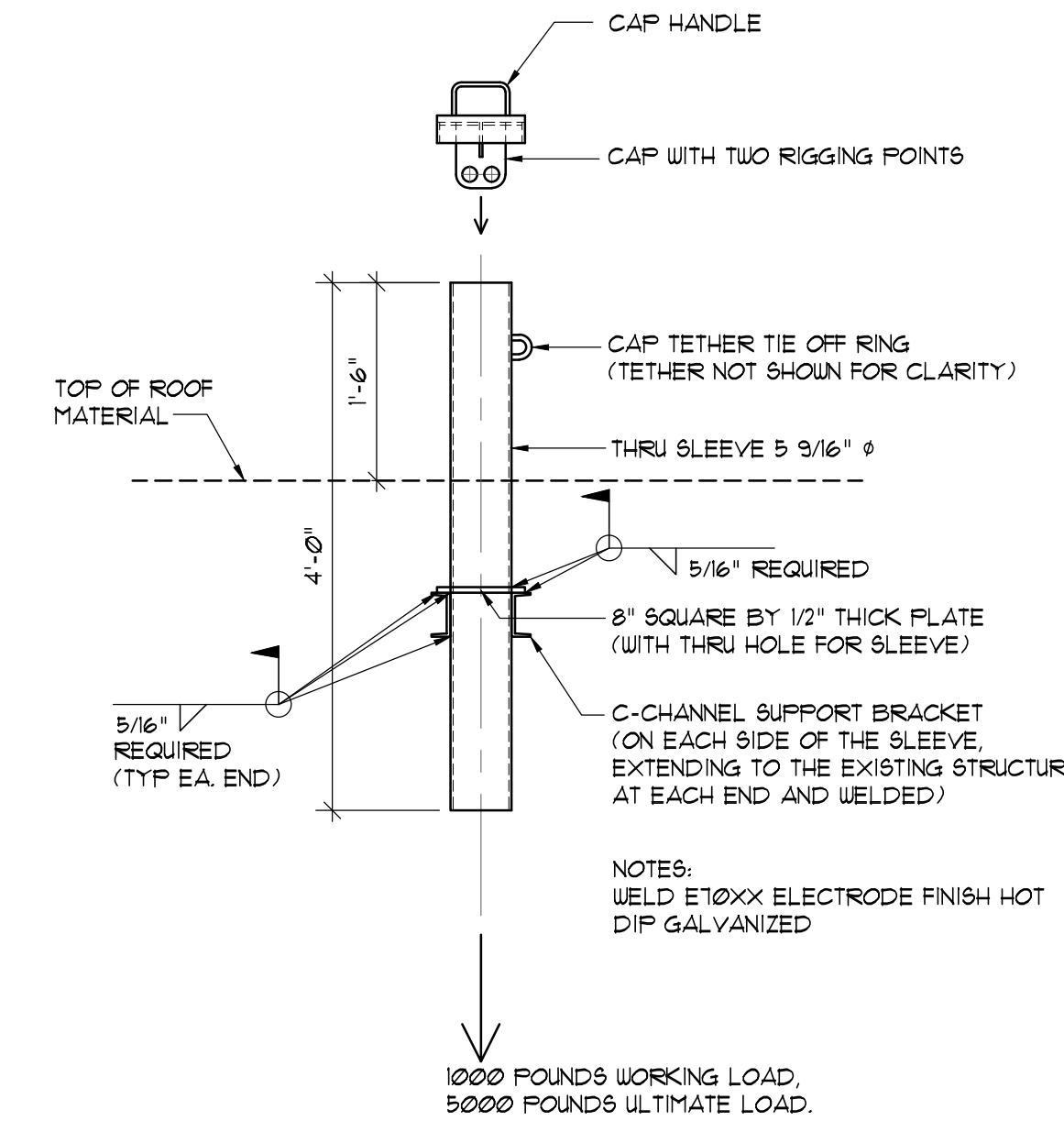
PLAN DETAIL A-A



PLAN DETAIL B-B

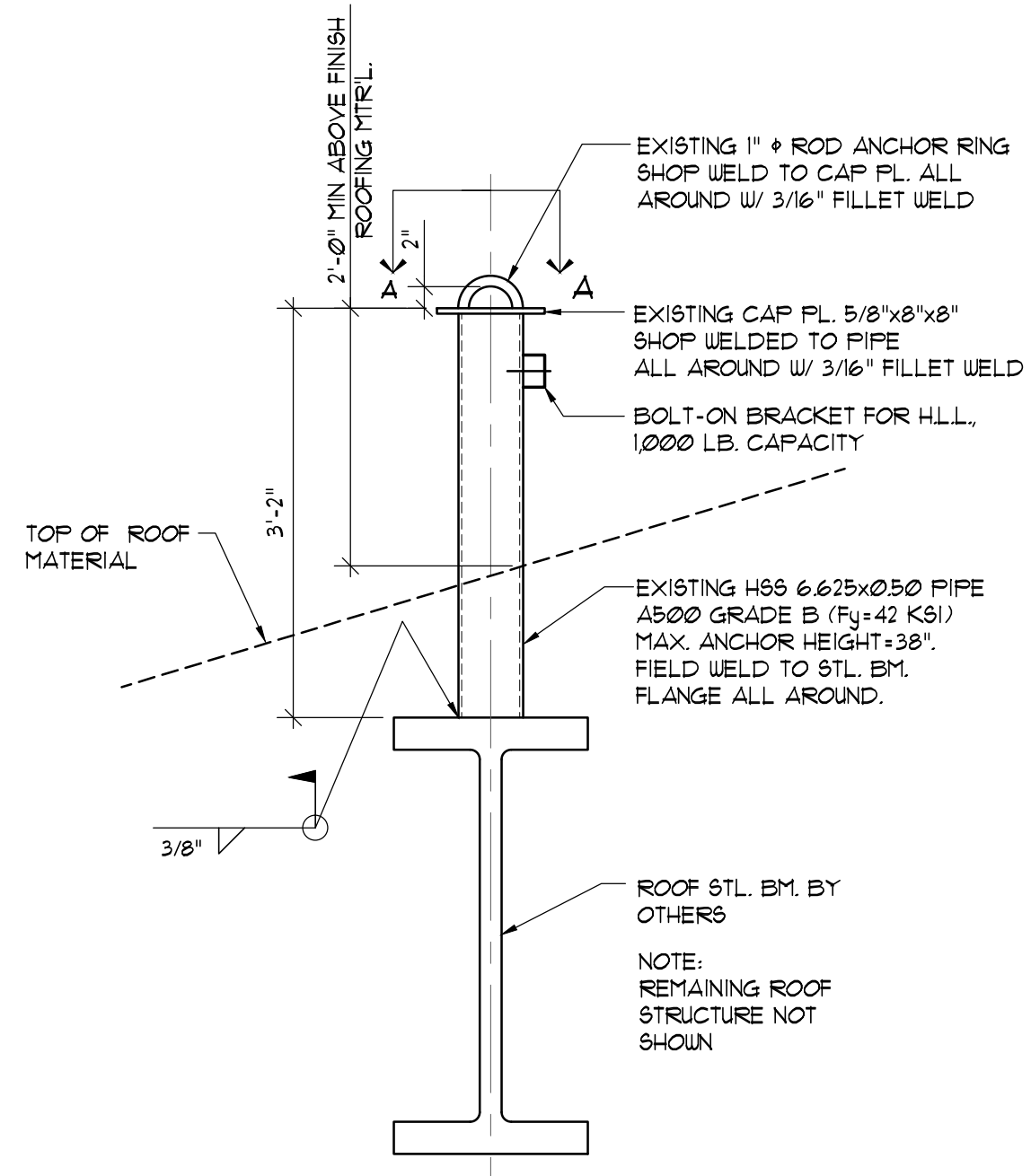


PLAN DETAIL C-C



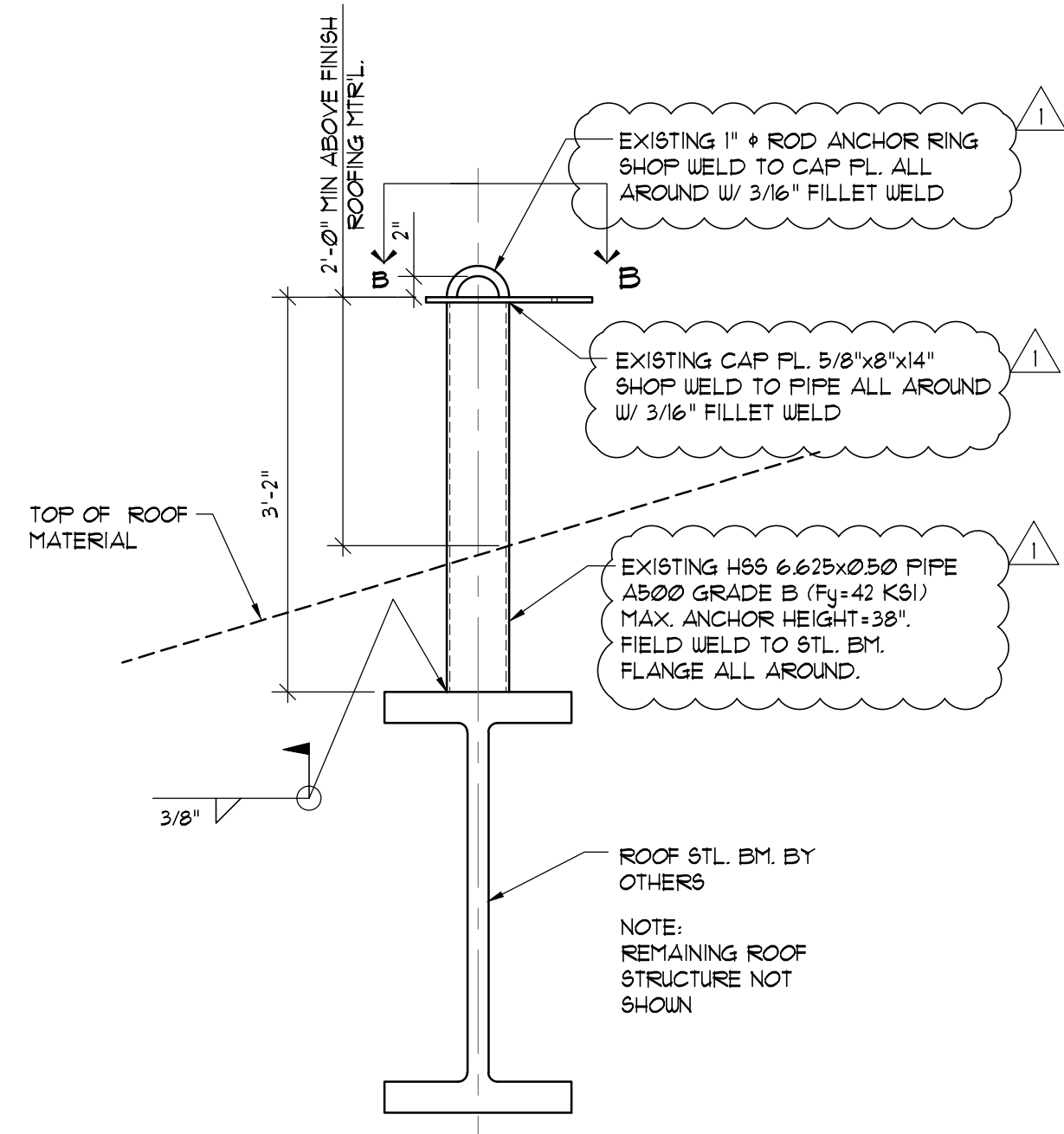
SECTION - HLL @ WEST ROOF EDGE THROUGH ROOF ANCHOR SLEEVE

3/4" x 1'-0"



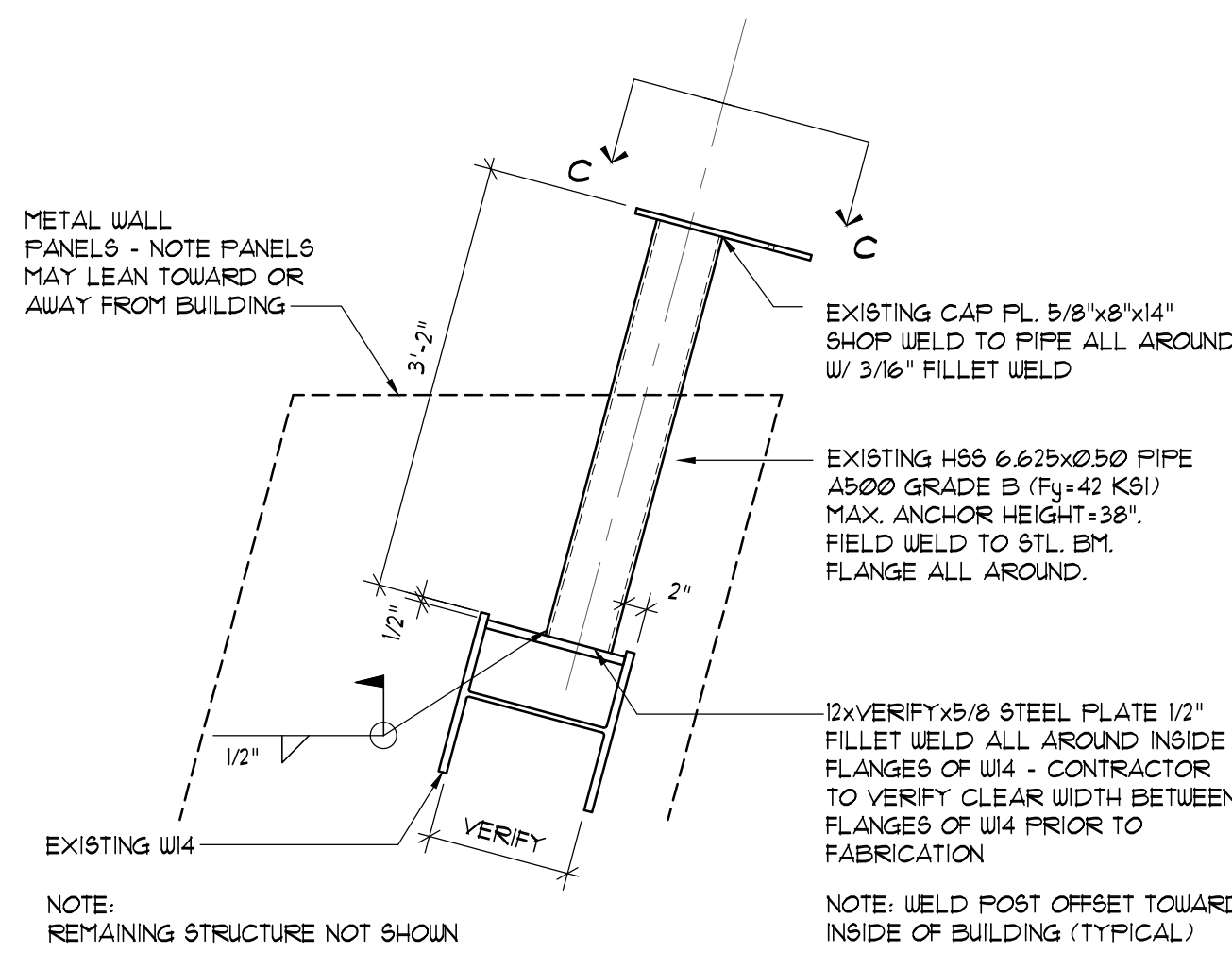
SECTION - HLL @ SOUTH RIDGE

3/4" x 1'-0"



SECTION - HLL @ INNER SNOW GUTTER RING & WEST ROOF EDGE

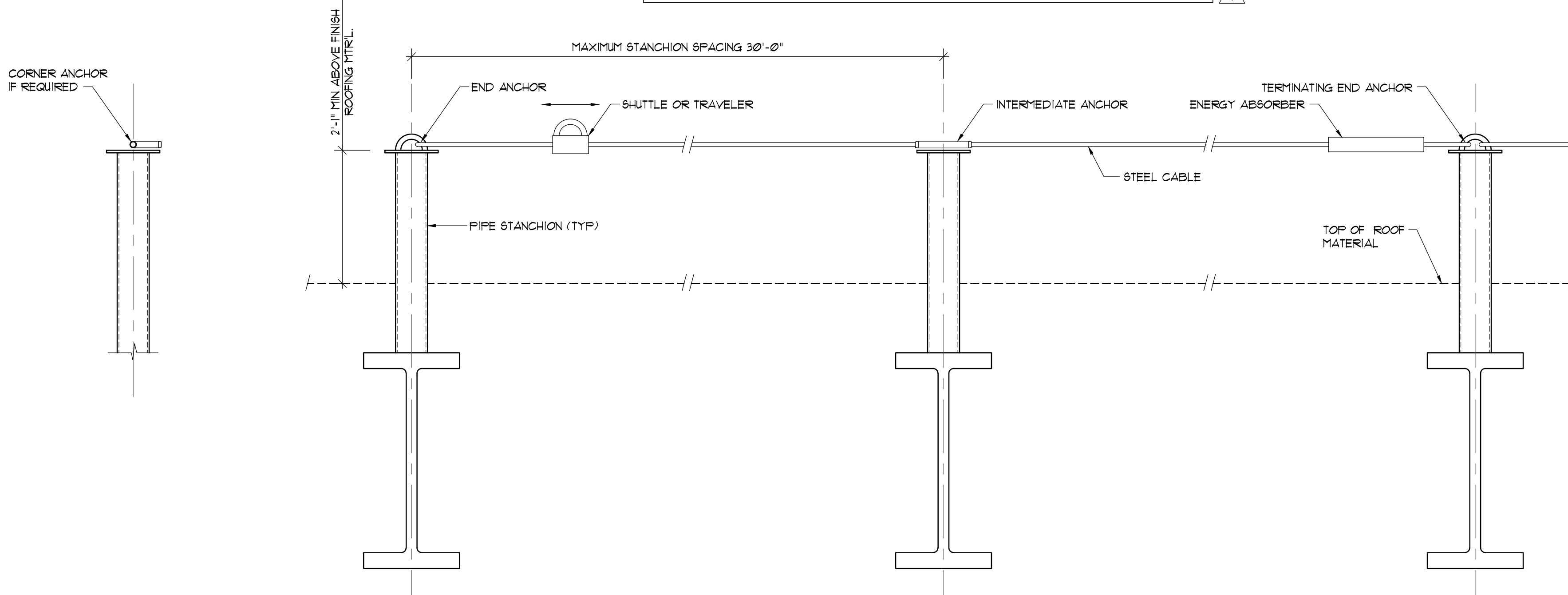
3/4" x 1'-0"



SECTION - HLL @ OUTER SNOW GUTTER RING

3/4" x 1'-0"

HORIZONTAL LIFE LINE LOADING:  
 1. THE LOAD FOR END/INTERMEDIATE SUPPORTS: 22.24 kN (5,000 LBS.) ULTIMATE  
 2. THE LOAD FOR CORNER SUPPORTS: 32.03 kN (7,200 LBS.) ULTIMATE, DIRECTION 360 DEGREES  
 MAXIMUM NUMBER OF USERS PER SYSTEM: 2 PEOPLE



TYPICAL HORIZONTAL LIFE LINE DETAIL

NOT TO SCALE

ID # DX  
 CERTIFIED TO 5,000 LBS STANDARD  
 FOR FALL ARREST USE ONLY  
 APPROVED PERSONAL FALL ARREST EQUIPMENT REQUIRED  
 WARNING: NOT FOR ANY OTHER USE.  
 LAST DATE CERTIFIED: dd/mm/yyyy  
 MUST BE INSPECTED BEFORE EACH USE AND CERTIFIED EVERY 1 YEAR.

NOTE:  
 1. CONTRACTOR TO PROVIDE ROOF ANCHORAGE TAG. ATTACH TO ANCHORAGE PIPE ABOVE ROOF LINE.  
 2. REPLACE TAG AS REQUIRED FOR DETERIORATION, OR EVERY 5 YEARS

ROOF ANCHORAGE TAG

NOTE: ALL STEEL COMPONENTS EXPOSED TO WEATHER, SUSTAINED CYCLIC MOISTURE OCCURRENCE, OR OTHER CORROSIVE CONDITIONS MUST BE HOT DIPPED GALVANIZED AS PER SPECIFICATIONS OF ASTM A123, GR50 COATING ENDS OF THREADED BOLTS AND NUTS AND FIELD WELDED CONNECTIONS SHALL BE WIRE BRUSHED, CLEANED AND COVERED WITH COLD GALVANIZING PAINT (595C-PAINTE 120). ALL PAINTING SHALL COMPLY WITH STANDARDS OF THE SOCIETY FOR PROTECTIVE COATINGS (STEEL STRUCTURES PAINTING COUNCIL'S) LATEST EDITION OF THE "SSPC PAINTING MANUAL" AND ASTM STANDARDS.

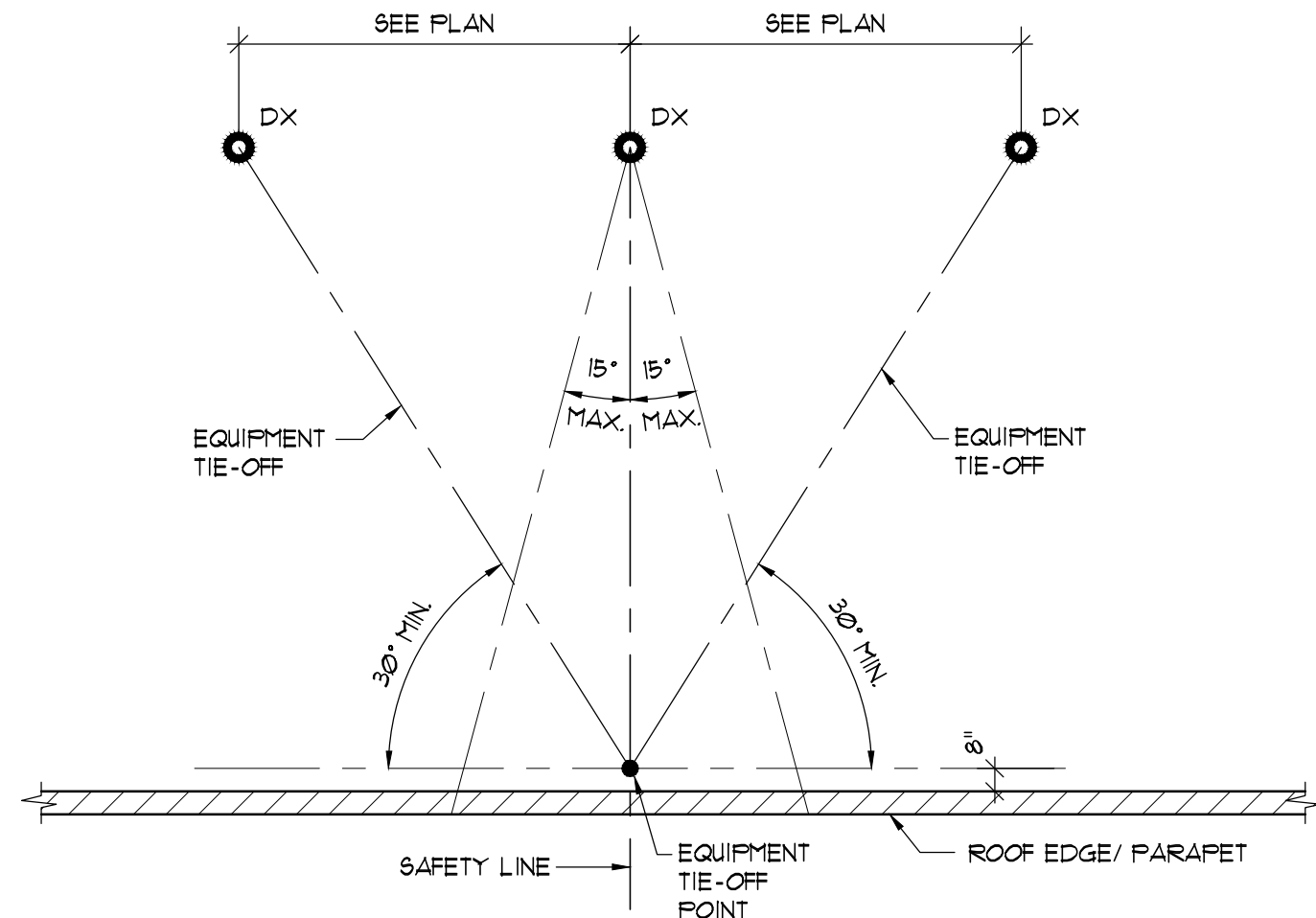
- GENERAL CONSTRUCTION NOTES:
- Reference Standards: Unless otherwise noted, all standards shall be current edition with latest addenda if applicable.
  - Contractor shall verify all existing dimensions, member sizes and field conditions prior to any demolition, fabrication, construction or installation and notify engineer if conditions, materials, sizes and dimensions are different from those shown.
  - The contract structural drawings and specifications represent the finished structure. Unless otherwise indicated, they do not indicate the means or method of construction. The contractor is solely responsible for the protection of the structure during all phases of demolition, construction and installation. Provide all measures necessary to protect the structure, workmen or other persons by means of shoring, bracing, etc.
  - Cross reference all dimensions and details with architectural and mechanical drawings before commencing any fabrication and/or construction.
  - Details and conditions not specifically shown shall be constructed in accordance with details shown for similar conditions and materials.
  - Shop drawings prepared by suppliers, sub-contractors, etc. shall be reviewed, coordinated and signed/stamped by general contractor prior to submitting to the engineer.
  - Contractor is solely responsible for protection of existing building during all phases of construction.
  - Horizontal Life Line Contractor: The HLL installation shall be performed by an experienced facade access contractor. The contractor shall have at least 3 years satisfactory experience in installing HLL systems of a similar type, size and complexity.

DESIGN CRITERIA LOADS AND STRESSES:  
 CODES:  
 1. International Building Code (2006) with State of Minnesota Amendments.  
 LATERAL LOADS:  
 7000 lbs in any direction. - Ridge and inner HLL support posts only  
 1000 lbs. - HLL

STEEL: (F<sub>y</sub>)  
 36,000 PSI ASTM A36 plates, angles etc.  
 46,000 PSI ASTM A500 grade B structural tubes (HSS)  
 GENERAL STEEL NOTES:  
 1. Construction of structural steel shall comply with all the requirements of the Manual of Steel Construction by the AISC, 15th Edition.  
 2. All welds as per latest specifications of the AWS E10xx electrodes.

INSPECTION & TESTING SCHEDULE				
MATERIAL	SPECIFICATION	FREQUENCY	AGENCY	DESCRIPTION
Welding Structural Steel	CS12C	Periodic	Testing Agent	Work is done IT04.3

STRUCTURAL STEEL:  
 1. Observe high strength bolting.  
 2. Observe field welding.  
 3. Observe installation of mechanical anchorage devices.  
 GENERAL TESTING NOTES:  
 1. Contractor shall field load test 25% of all post-installed anchors for a 4,000 lbs. axial load prior to installing at testing davits.  
 2. Contractor to field load test all new davits. Field test load 5,000 lbs applied horizontally to top of davit.



SINGLE LINE RIGGING DIAGRAM

3/4" x 1'-0"

PRELIMINARY - NOT FOR CONSTRUCTION

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**CLARK**  
 ENGINEERING CORPORATION

DESIGNED BY: KURT A. BERGLUND  
 CHECKED BY: KURT A. BERGLUND  
 DATE: 2/24/15

HORIZONTAL LIFE LINE (HLL)  
 MINNESOTA MULTI-PURPOSE STADIUM  
 MINNEAPOLIS, MINNESOTA

SHEET TITLE: HORIZONTAL LIFE LINE (HLL)  
 SHEET NO.: 56 OF 56  
 PROJECT: MINNESOTA MULTI-PURPOSE STADIUM  
 DATE: 1/29/15  
 PROJECT NO.: 14006  
 SHEET NO.: 56