

All loading and design criteria supplied by customer is assumed accurate. Only the stated Design Assumptions were considered, and must be verified by the responsible Engineer of Record (EOR). The basis of Hilti component and connection design is the published data in the current Hilti Technical Guide, including material and cross-section properties, allowable load values, factors of safety, methods of calculation, and limiting factors. The EOR must verify suitability for any specific application, and the capacity of the supportive structure to receive the shown configuration and associated reaction loads. Modification to components and/or design may alter performance and must be evaluated by the EOR.

TYPICAL DETAIL TYPE:

**CABLE TRAY SUPPORT**

TYPICAL DETAIL DESCRIPTION:

**F-FRAME - 3 TIER**

DESIGNED BY:

AJV

REVIEWED BY:

KL

DRAWN BY:

BAP

ISSUE DATE:

18 NOV 14

REVISIONS:

NO.	DESCRIPTION:	DATE:
A	ORIGINAL ISSUE	18 NOV 14

TYPICAL DETAIL NOMENCLATURE:

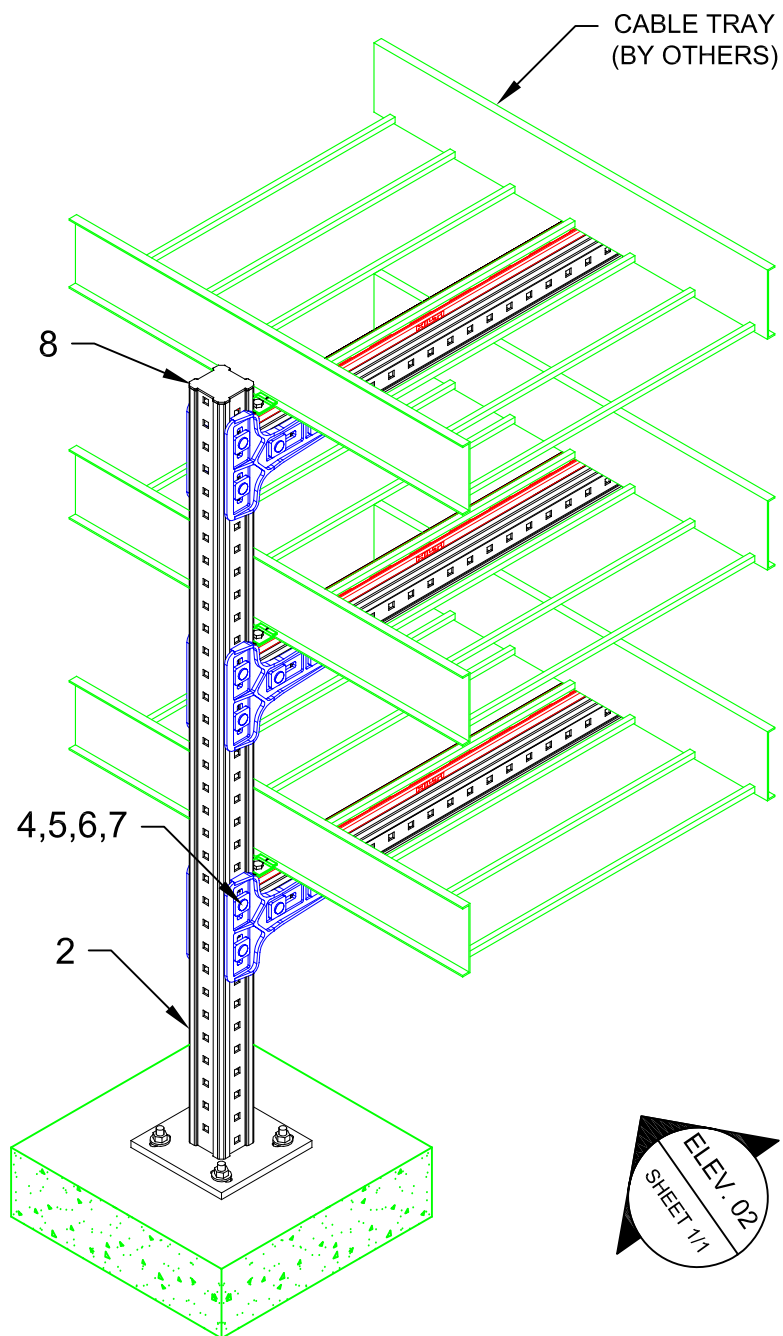
**CT-F04-C**

DRAWING NUMBER:

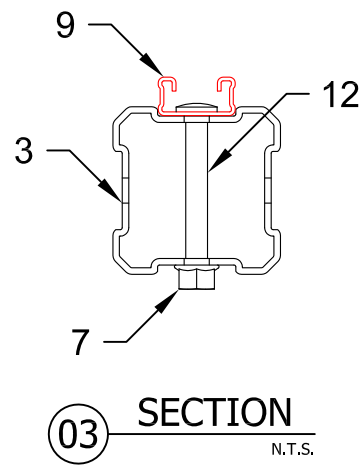
01

SHEET:

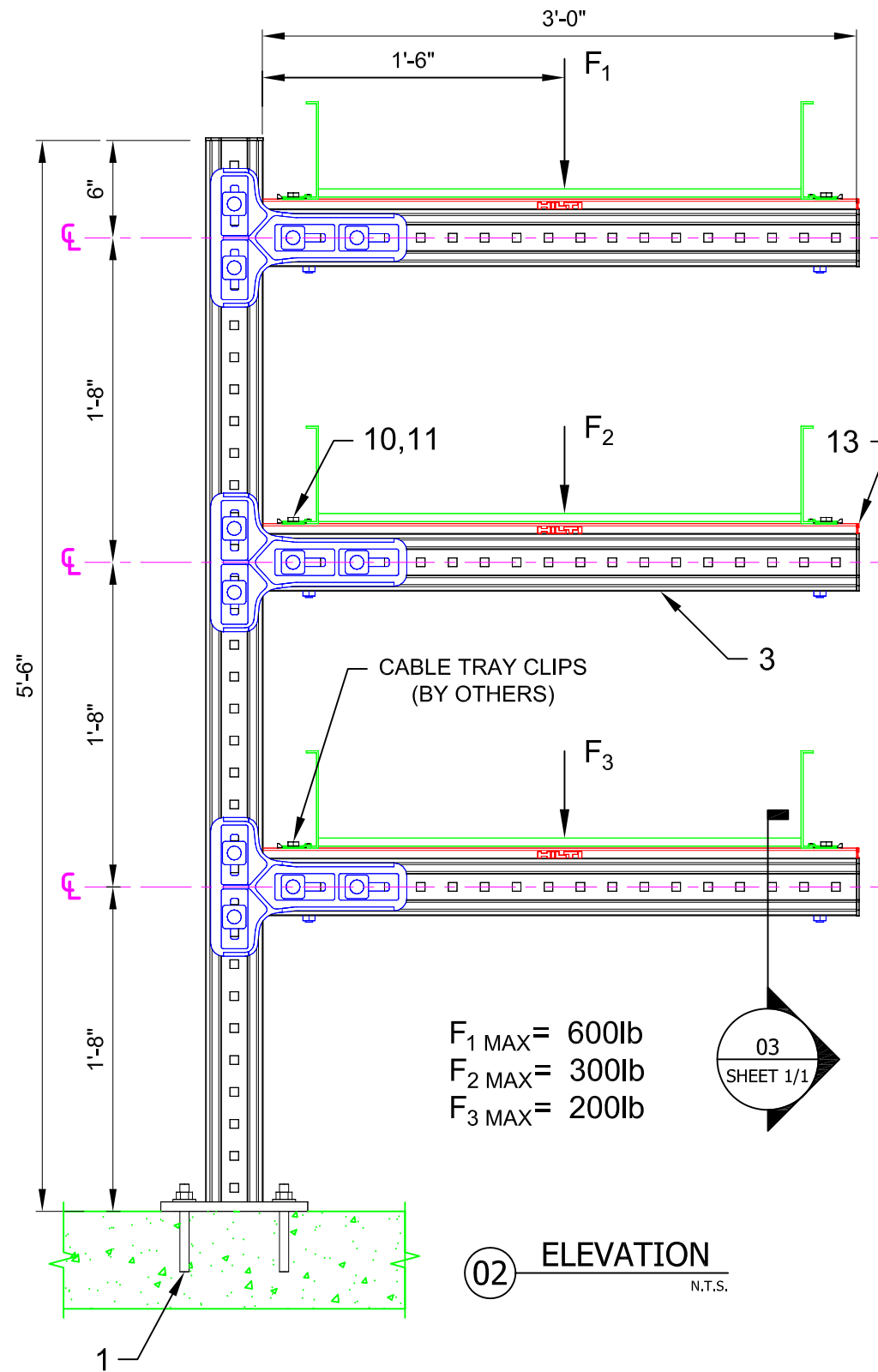
1/1



**01 ISOMETRIC**  
N.T.S.



**03 SECTION**  
N.T.S.



$F_1$  MAX = 600lb  
 $F_2$  MAX = 300lb  
 $F_3$  MAX = 200lb

**02 ELEVATION**  
N.T.S.

**NOTE(S):**

- PRELIMINARY NOT FOR CONSTRUCTION.
- DESIGN ASSUMPTIONS:
  - DESIGN LOADS (STATIC, U.N.O.);  
DL: AS SHOWN ON SUPPORT  
LOADS ARE ULTIMATES.
  - LATERAL LOADS NOT CONSIDERED
  - BUILDING CODE: IBC 2006 / 2009 / 2012
  - CORROSION RESISTANCE REQD.: HDG / SS / EG
  - MAX. SUPPORT SPACING = TBD
- ALL LOADS ASSUMED TO ACT AT CENTER OF PIPE(S), U.N.O.
- REFER TO COMPONENT MANUFACTURER'S IFUs FOR REQUIRED INSTALLATION INFO.
- E.O.R. MUST BE NOTIFIED OF ANY DEVIATIONS FROM EXISTING/ NEW SUBSTRATE CONDITIONS SHOWN HEREIN TO VALIDATE ACCEPTANCE OF THIS HILTI DESIGN PRIOR TO INSTALLATION.

No.	Unit Qty	Unit	Description	Box Qty	# Boxes Needed	Item No.
1	4	EA	USE KB3 OR KB-TZ AS APPROPRIATE	VARIES	VARIES	VARIES
2	1	EA	CONNECTOR MIC-C90-D-2000 WELDED BRACKET	1	1	267793
3	AS REQ'D	EA	GIRDER MI-90 3M	1	AS REQ'D	304798
4	3	PR	CONNECTOR MIC-90-LH (2048107)	3	1	SPECIAL
5	12	EA	EASYHAND SCREW MIA-EH90	10	2	304887
6	12	EA	TOOTHED PLATE MIA-TP	20	1	305707
7	18	EA	MI HEX NUT M12-F-SL-WS 3/4"	100	1	382897
8	4	EA	GIRDER END CAP MIA-EC90	25	1	432077
9	AS REQ'D	EA	STRUT MS-1316-12/HDG 9'-10" (3M)	1	AS REQ'D	407569
10	6	EA	WING NUT MQM-F3/8"-F	25	1	304136
11	6	EA	3/8" x 1/2" LONG HDG HEX HEAD BOLT	VARIES	VARIES	SPECIAL
12	6	EA	ONEHAND SCREW MIA-OH90	10	1	304889
13	3	EA	CHANNEL END CAP MEK RED	50	1	244886