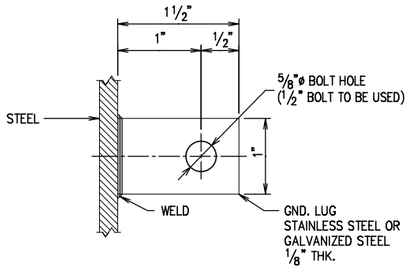
GROUNDING LUG

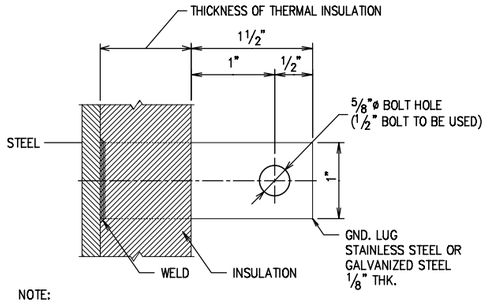
DETAIL 86



NOTE:
1. DIMENSIONS HEREIN INDICATED ARE APPROXIMATE AND INTENDED FOR A GUIDE.

GROUNDING LUG FOR STEEL WITH THERMAL INSULATION COVERING

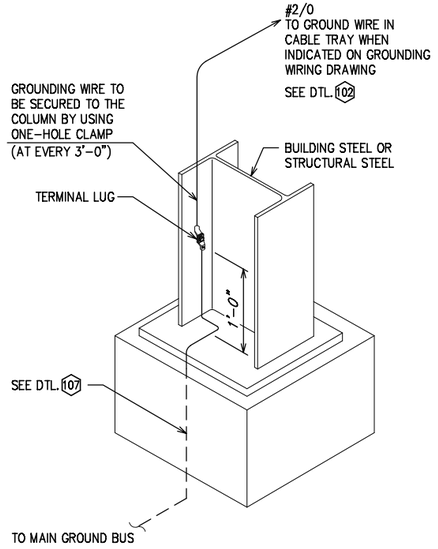
DETAIL 87



NOTE:
1. DIMENSIONS HEREIN INDICATED ARE APPROXIMATE AND INTENDED FOR A GUIDE.

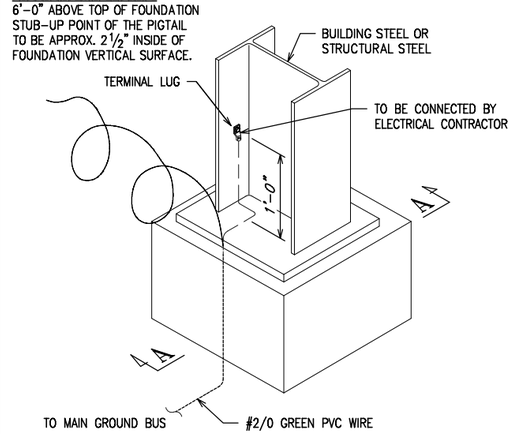
GROUNDING FOR PIPE RACK SUPPORT, BLDG. COLUMN, EQUIPMENT SUPPORT

DETAIL 88

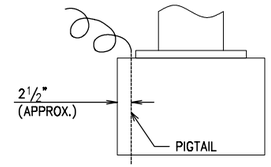


DETAIL 88X

GROUNDING WIRE PIGTAIL
6'-0" ABOVE TOP OF FOUNDATION STUB-UP POINT OF THE PIGTAIL TO BE APPROX. 2 1/2" INSIDE OF FOUNDATION VERTICAL SURFACE.



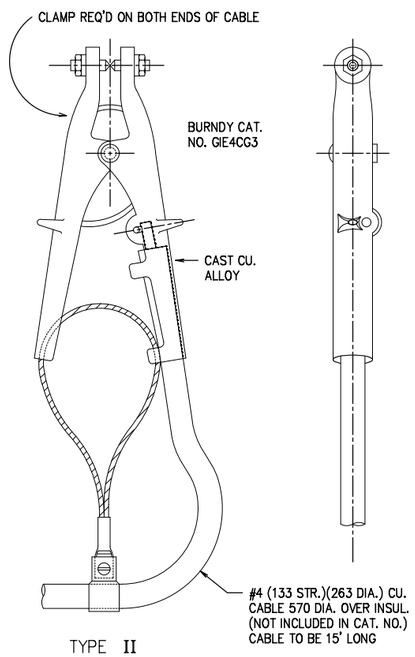
FOUNDATION CONTRACTOR TO INSTALL GROUNDING ROD & PIGTAIL FOR PIPE RACK, BUILDING COLUMN AND/OR STRUCTURE STEEL, SEE GROUNDING PLAN DRAWINGS. PIGTAIL CONNECTION TO COLUMN TO BE MADE BY ELECTRICAL CONTRACTOR.



SECTION "A"-"A"

GROUND CLAMP FOR PORTABLE CABLE

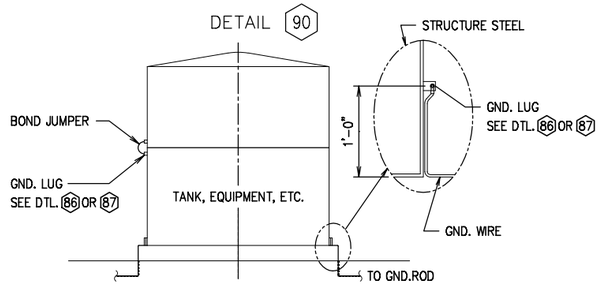
DETAIL 89



TYPE II

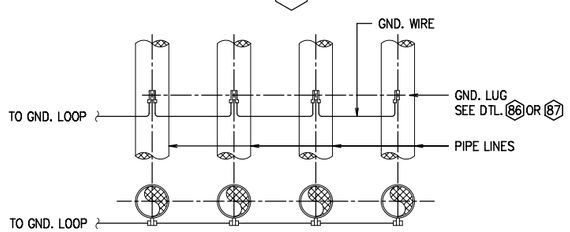
GROUNDING FOR TANK OR EQUIPMENT

DETAIL 90



GROUNDING FOR PIPELINES

DETAIL 91



REV. NO.	DESCRIPTION	DRAWN	CHECKED	DATE
△				
△				
△				
△				
0	ISSUE FOR BID (EA-502)	R.GOTOH	T.SAGISAKA	JUN.16.'26

SHINTECH PLAQUEMINE CA PLANT-4

GROUNDING DETAILS (1)

SHINTECH

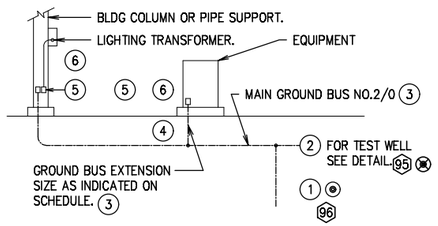
APPROVED BY	Y.KANEKO	DATE	JUN.16.'26	SCALE	NONE
CHECKED BY	T.SAGISAKA	DWG. NO.	LPA4-70008-31		0
DRAWN BY	R.GOTOH				

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JUN.16.'26

TYPICAL GROUNDING RISER DIAGRAM

DETAIL 93



TYPICAL GROUNDING RISER DIAGRAM

ITEM NO.	DESCRIPTION
(1)	3/4"x10'-0" HOT DIP GALV. STEEL GROUND ROD DRIVEN INTO UNDISTURBED EARTH MIN. 18" BELOW GRADE.
(2)	BURNDY TYPE GAR 6426, DOSSERT TYPE GPC OR ANDERSON GC 111 CLAMP AND 3M SCOTCHCAST KIT NO.8514.
(3)	STRANDED COPPER, HIGH MOLECULAR WEIGHT PVC INSULATED, TYPE CP, 600 VOLT.
(4)	BURNDY TYPE YCC, OR T&B 54000 SERIES WITH AND 3M SCOTCHCAST KIT NO.8512.
(5)	BURNDY TYPE YA-L OR T&B 54000 SERIES WITH 3/8" EVERDUR BOLT & LOCKWASHER (MAX. 3 PER WEB ON COL).
(6)	BURNDY TYPE KC FOR EQUIPMENT WITH SCREW STUDS OR ITEM NO.5.

GROUND CONDUCTOR SIZE

DETAIL 94

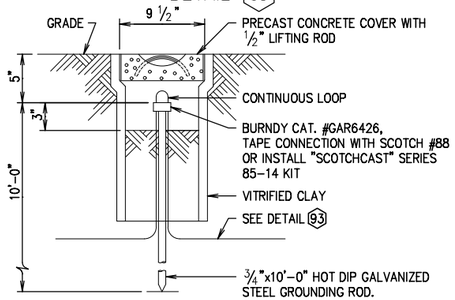
TABLE OF GROUND CONDUCTORS

ITEM		CONDUCTOR SIZE
MOTORS ABOVE 75HP		#2
MAIN LATERALS		#2/0
TOWERS, VESSELS & LARGE MECH. EQUIPMENT		#2/0
MAJOR EQUIPMENT GROUND (MOTOR CONTROL CENTERS, 2300 VOLT STARTERS, TRANSFORMERS)		#2/0
LIGHTING AND DISTRIBUTION CABINETS		#4
MISCELLANEOUS SMALL ITEMS AND SMALL MECHANICAL EQUIPMENT		#4
PIPE RACK SUPPORTS AND BLDG. COLUMNS		#2/0
SERVICE EQUIPMENT HAVING SERVICE CONDUCTOR OR CONDUCTORS EQUAL TO OR GREATER THAN 1100 MCM COPPER EQUIVALENT		#4/0
FENCE GROUNDING LATERALS		#6
PIPE LINE BONDING JUMPER		#8
CONDUIT BONDING JUMPER (TO THE CABLE TRAY)	SMALLER THAN 4"CP 4"CP OR LARGER	#4 #2
FLEXIBLE CONDUIT BONDING JUMPER	SMALLER THAN 2-1/2"CP 2-1/2", 3", 3-1/2"CP 4"CP OR LARGER	NOT REQUIRED #4 #2

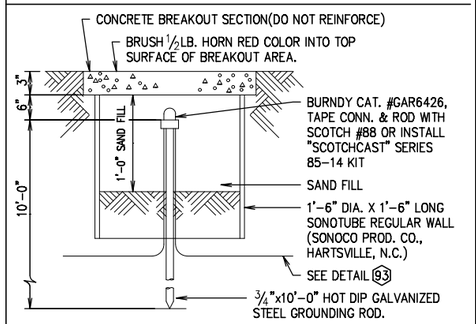
THE SPECIFICATION OF ALL GROUND WIRES SHALL BE MADE OF COPPER WITH 600V PVC INSULATED SOLID OR STRANDED.

GROUND WELL

DETAIL 95



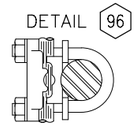
ALTERNATE "A"



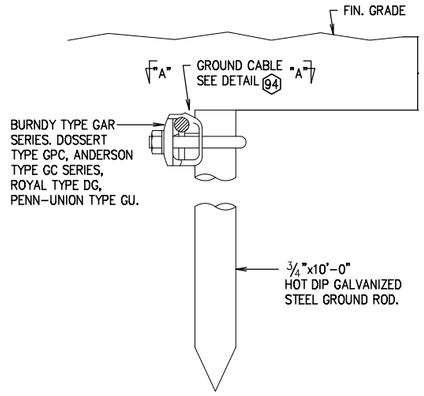
ALTERNATE "B"

GROUNDING BUS PARALLEL AND/OR 90° ANGLE CONNECTION TO GROUND ROD

DETAIL 96



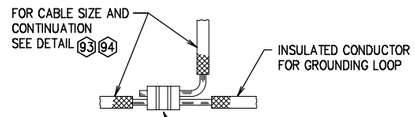
SECTION "A"-"A"



NOTES:
1. TYPE CONNECTION AT ROD WITH SCOTCH #88 OR INSTALL "SCOTCHCAST" SERIES 85-14 KIT.
2. APPROVED THERMAL CONNECTORS ARE CADWELD TYPE GR, GX AND GT.

CABLE TO CABLE GROUND CONNECTION

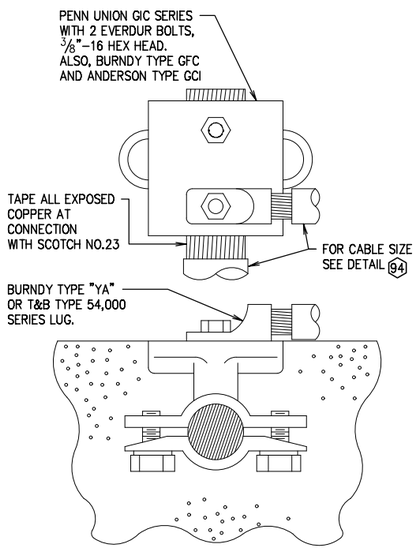
DETAIL 97



NOTES:
1. APPROVED MECHANICAL TYPE CONNECTORS ARE:
   BURNDY TYPE GX — DELTA STAR TYPE GG
   DOSSERT TYPE GG — PENN UNION TYPE GXA
   ANDERSON TYPE GC
2. APPROVED THERMAL WELDED CONNECTORS ARE:
   CADWELD TYPE TA, TV, PC, XA & XB

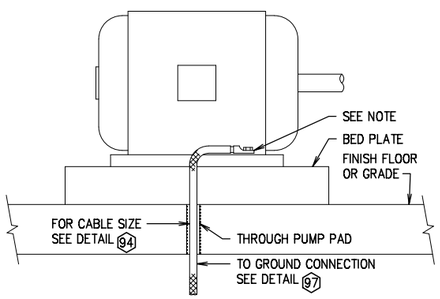
GROUNDING PAD IN SLAB

DETAIL 98



TYPICAL MOTOR GROUND CONNECTION FOR 75HP OR LARGER MOTORS

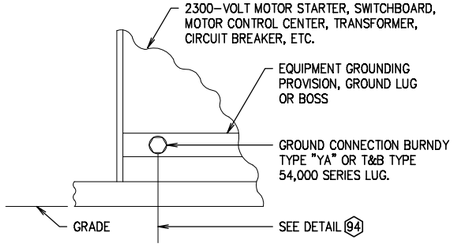
DETAIL 99



NOTES:
USE BURNDY TYPE "YA" OR T&B TYPE 54,000 SERIES LUG, CONNECT GROUND WIRE TO MOTOR AT POINT PROVIDED BY MANUFACTURER, AT THE MOUNTING BOLT, OR DRILL & TAP BASE TO SUIT CONNECTOR USED; DRESS CONNECTION POINT ON MOTOR TO BRIGHT METAL.

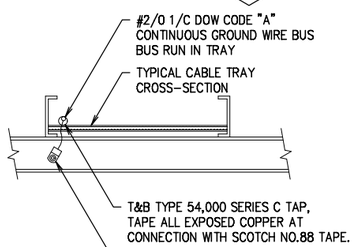
TYPICAL ELECTRICAL EQUIPMENT GROUNDING

DETAIL 101



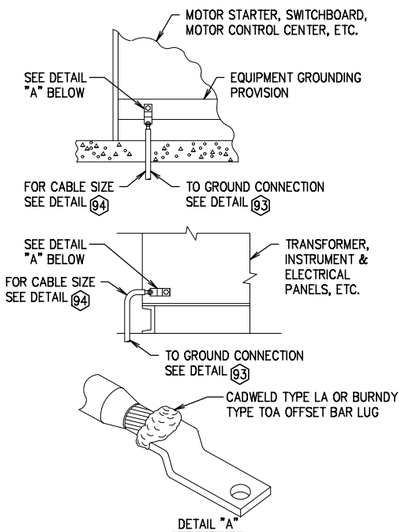
GROUND BUS TO STEEL SUPPORT DETAIL

DETAIL 102



TYPICAL ELECTRICAL EQUIPMENT GROUNDING THERMAL WELDED CONNECTION

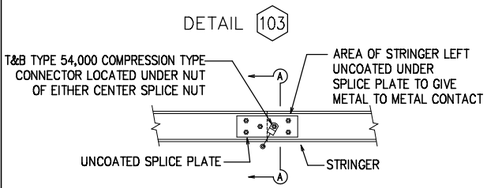
DETAIL 101A



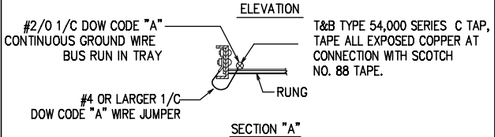
DETAIL "A"

GROUND BUS TO TRAY JUMPER DETAIL

DETAIL 103

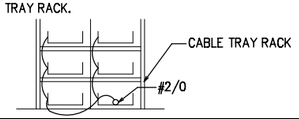


ELEVATION



SECTION "A"

NOTES:
1. INSTALL GROUNDING JUMPER AT EVERY FOURTH SPLICE PLATE.
2. UNCOATED AREAS AND HARDWARE AT SPLICE SHALL BE COATED AS PER JOB SPECIFICATIONS AFTER GROUND INSTALLATION
3. CONNECTORS ARE SHOWN - APPROVED EQUAL BURNDY CONNECTORS MAY BE USED.
4. GROUND EVERY CABLE TRAY UNLESS CABLE TRAY IS WELDED TO CABLE TRAY RACK.



REV. NO.	DESCRIPTION	DRAWN	CHECKED	DATE
0	ISSUE FOR BID (EA-502)	R.GOTOH	T.SAGISAKA	JUN.16.'26

SHINTECH PLAQUEMINE CA PLANT-4

GROUNDING DETAILS (2)

SHINTECH

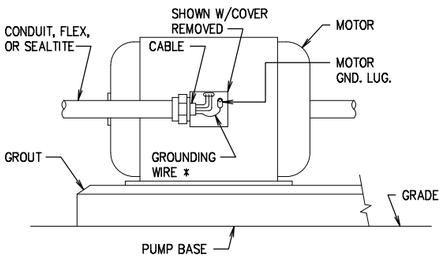
APPROVED BY	Y.KANEKO	DATE	JUN.16.'26	SCALE	NONE
CHECKED BY	T.SAGISAKA	DWG. NO.	LPA4-70008-32		0
DRAWN BY	R.GOTOH				

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JUN.16.'26

TYPICAL MOTOR GROUND CONNECTION FOR 60HP OR SMALLER MOTORS

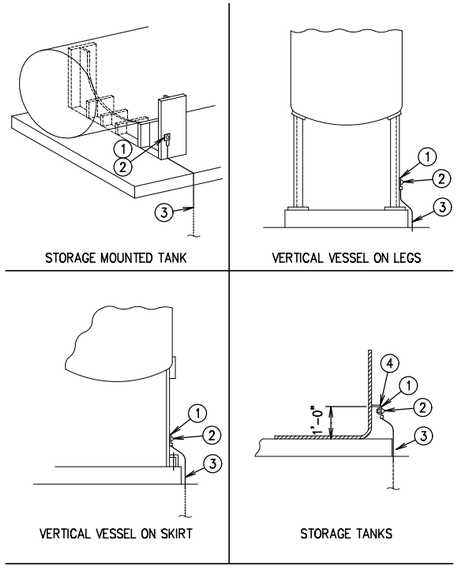
DETAIL 104



* 1 CONDUCTOR OF MOTOR FEEDER CABLE SHALL BE USED FOR GROUNDING, AND CONNECTED TO MOTOR AND MCC BY COMPRESSION LUG.

VESSEL GROUNDING

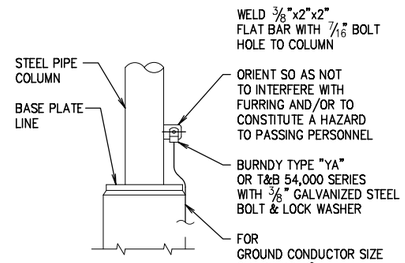
DETAIL 105



(1) COMPRESSION LUG–BURNDY TYPE YA OR T&B 54,000 SERIES.
(2) ⅜" EVERDUR BOLT, NUT AND LOCKWASHER.
(3) SEE DETAIL 94 FOR CABLE SIZE.
(4) 2x2x¼ STEEL CLIP FURNISHED ON VESSELS BY VESSEL FABRICATOR WITH ½" DRILLED HOLE FOR GROUNDING LUG.

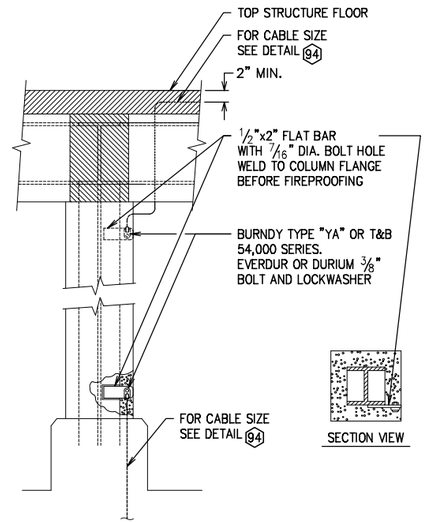
GROUNDING OF STEEL STRUCTURAL PIPE COLUMN

DETAIL 106



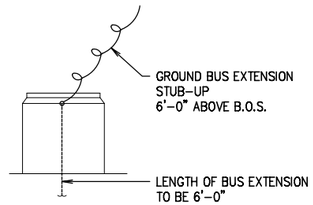
GROUNDING TO FIREPROOF STRUCTURE COLUMN

DETAIL 106A



GROUNDING PIGTAIL

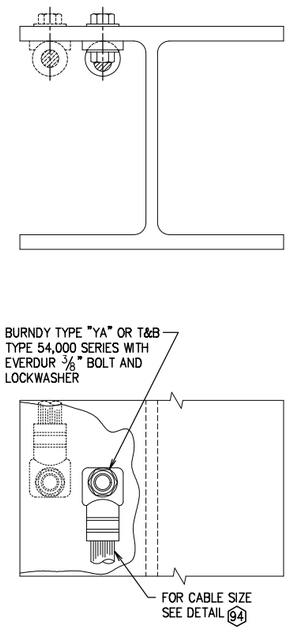
DETAIL 107



PIGTAIL TO BE INSTALLED BEFORE CONCRETE IS POURED
SEE DETAIL 94 FOR SIZE OF GRD. WIRE &
SEE DETAIL 93 FOR TYPE OF CONNECTION.

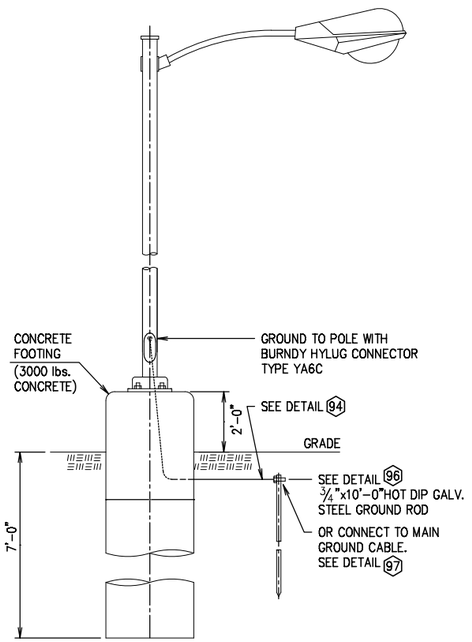
GROUNDING TO STEEL COLUMN

DETAIL 108



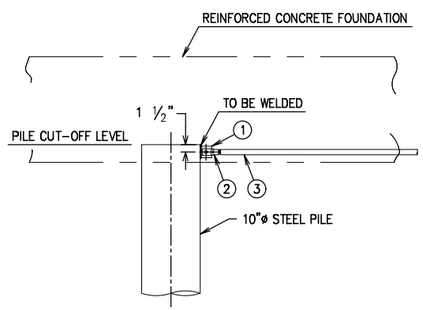
GROUNDING OF STREET LIGHTING LUMINAIRE

DETAIL 109



GROUNDING WIRE CONNECTION TO STEEL PILE

DETAIL 110



(1) : HOT DIP GALVANIZED SQUARE WASHER 2"x2"x⅛", 9/16"ø HOLE
(2) : SHORT BARREL LUG BOLT SIZE ½" WIRE SIZE 4/0 AWG YA28–L OR EQUAL
(3) : GROUNDING WIRE (GREEN) 4/0 AWG

REV. NO.	DESCRIPTION	DRAWN	CHECKED	DATE
△				
△				
△				
△				
0	ISSUE FOR BID (EA–502)	R.GOTOH	T.SAGISAKA	JUN.16.'26

SHINTECH PLAQUEMINE CA PLANT–4

GROUNDING DETAILS (3)

SHINTECH

APPROVED BY	Y.KANEKO	DATE	JUN.16.'26
CHECKED BY	T.SAGISAKA	SCALE	NONE
DRAWN BY	R.GOTOH	DWG. NO.	LPA4–70008–33 0

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