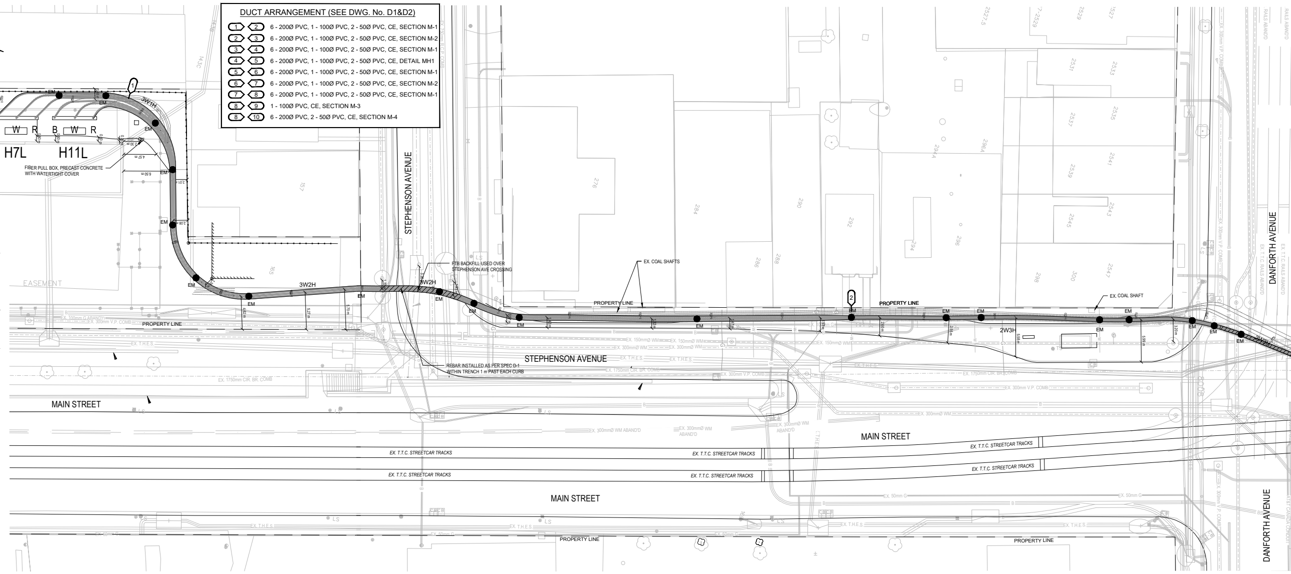
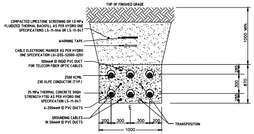
DUCT ARRANGEMENT (SEE DWG. No. D1&D2)

1	2	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
2	3	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-2
3	4	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
4	5	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, DETAIL MH1
5	6	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
6	7	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-2
7	8	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
8	9	1 - 100Ø PVC, CE, SECTION M-3
8	10	6 - 200Ø PVC, 2 - 50Ø PVC, CE, SECTION M-4



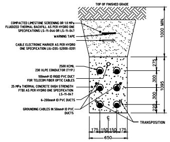
MAIN TS
H7L
H11L
B W R B W R
3W1H
FIBER PULL BOX, PRECAST CONCRETE WITH WATERTIGHT COVER
EASEMENT
PROPERTY LINE
3W2H
STEPHENSON AVENUE
FTB BACKFILL USED OVER STEPHENSON AVE CROSSING
REBAR INSTALLED AS PER SPEC D-1 WITHIN TRENCH 1 m PAST EACH CURB
EX. COAL SHAFTS
EX. COAL SHAFT
2W3H
EM
MAIN STREET
EX. T.T.C. STREETCAR TRACKS
DANFORTH AVENUE



TOP OF FINISHED GRADE
COMPACTED LIMESTONE SCREENING OR 1.0 MPa FLUIDIZED THERMAL BACKFILL AS PER HYDRO ONE SPECIFICATIONS LS-11-046 OR LS-11-047
WARNING TAPE
CABLE ELECTRONIC MARKER AS PER HYDRO ONE SPECIFICATION LIU-D3S-52000-0201
100mmØ ID RIGID PVC DUCT FOR TELECOM FIBER OPTIC CABLES
2500 KCMIL 230 XLPE CONDUCTOR (TYP.)
25 MPa THERMAL CONCRETE (HIGH STRENGTH FTB) AS PER HYDRO ONE SPECIFICATION LS-11-047
6-200mmØ ID PVC DUCTS
GROUNDING CABLES IN 50mmØ ID PVC DUCTS
TRANSPOSITION
1000 MIN.
285
300
285
870
200
300
300
200
1000

STA 0+950 TO 1+037
STA 1+186 TO 2+202
STA 2+207 TO 2+350
TRANSPOSITION AT STA 1+310 AND 2+035

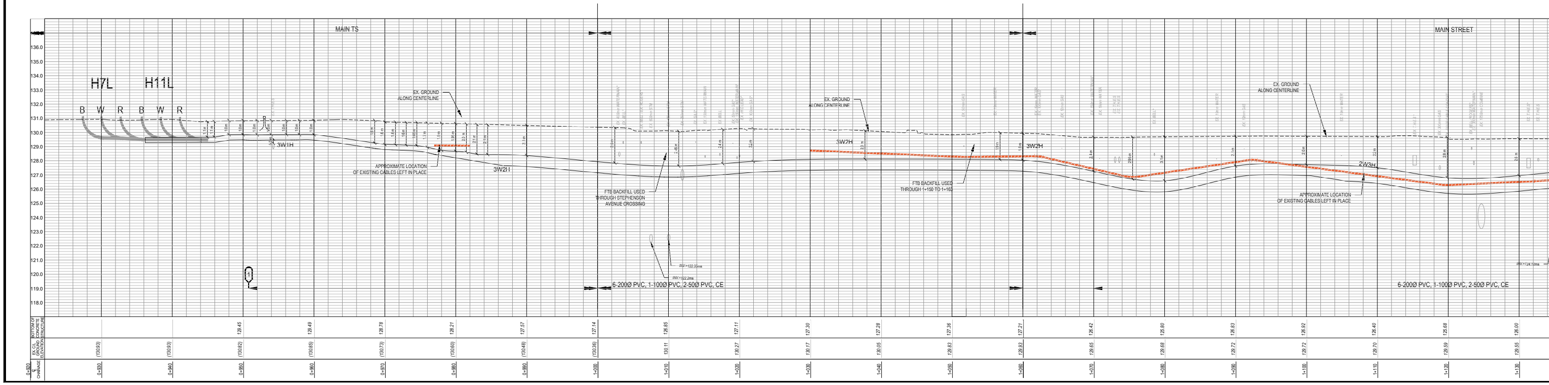
SECTION M–1
3W2H CONCRETE ENCASED DUCT BANK



TOP OF FINISHED GRADE
COMPACTED LIMESTONE SCREENING OR 1.0 MPa FLUIDIZED THERMAL BACKFILL AS PER HYDRO ONE SPECIFICATIONS LS-11-046 OR LS-11-047
WARNING TAPE
CABLE ELECTRONIC MARKER AS PER HYDRO ONE SPECIFICATION LIU-D3S-52000-0201
2500 KCMIL 230 XLPE CONDUCTOR (TYP.)
100mmØ ID RIGID PVC DUCT FOR TELECOM FIBER OPTIC CABLES
25 MPa THERMAL CONCRETE (HIGH STRENGTH FTB) AS PER HYDRO ONE SPECIFICATION LS-11-047
6-200mmØ ID PVC DUCTS
GROUNDING CABLES IN 50mmØ ID PVC DUCTS
TRANSPOSITION
1000 MIN.
275
300
300
220
1095
175
150
150
175
650

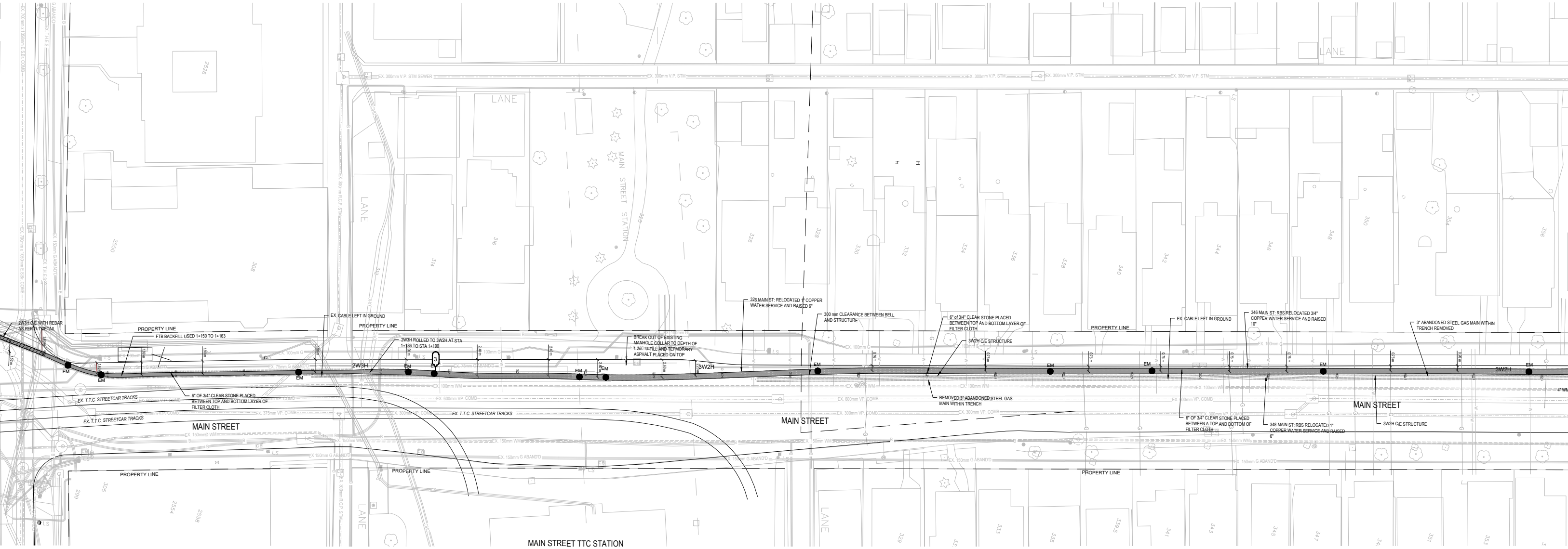
STA 1+070 TO 1+198
STA 2+196 TO 2+210

SECTION M–2
2W3H CONCRETE ENCASED DUCT BANK

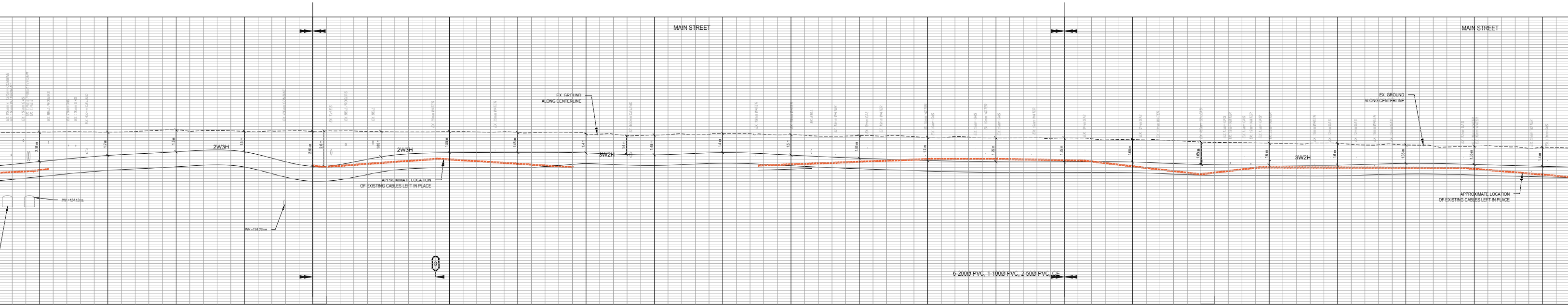


MAIN TS
MAIN STREET
H7L
H11L
B W R B W R
3W1H
3W2H
2W3H
EX. GROUND ALONG CENTERLINE
APPROXIMATE LOCATION OF EXISTING CABLES LEFT IN PLACE
FTB BACKFILL USED THROUGH STEPHENSON AVENUE CROSSING
FTB BACKFILL USED THROUGH 1+150 TO 1+163
6-200Ø PVC, 1-100Ø PVC, 2-50Ø PVC, CE
136.0
135.0
134.0
133.0
132.0
131.0
130.0
129.0
128.0
127.0
126.0
125.0
124.0
123.0
122.0
121.0
120.0
119.0
118.0
BOTTOM OF CONCRETE ELEVATION/STRUCTURE
EX. C/L GROUND ELEVATION
CHAINAGE

CHAINAGE	EX. C/L GROUND ELEVATION	BOTTOM OF CONCRETE ELEVATION/STRUCTURE
0+930	(130.93)	
0+940	(130.93)	
0+950	(130.82)	129.45
0+960	(130.85)	129.49
0+970	(130.73)	128.78
0+980	(130.60)	128.21
0+990	(130.48)	127.57
1+000	(130.36)	127.14
1+010	130.11	126.85
1+020	130.27	127.11
1+030	130.17	127.30
1+040	130.05	127.28
1+050	129.83	127.36
1+060	129.93	127.21
1+070	129.65	126.42
1+080	129.68	125.80
1+090	129.72	126.83
1+100	129.72	126.92
1+110	129.70	126.40
1+120	129.59	125.68
1+130	129.55	126.00

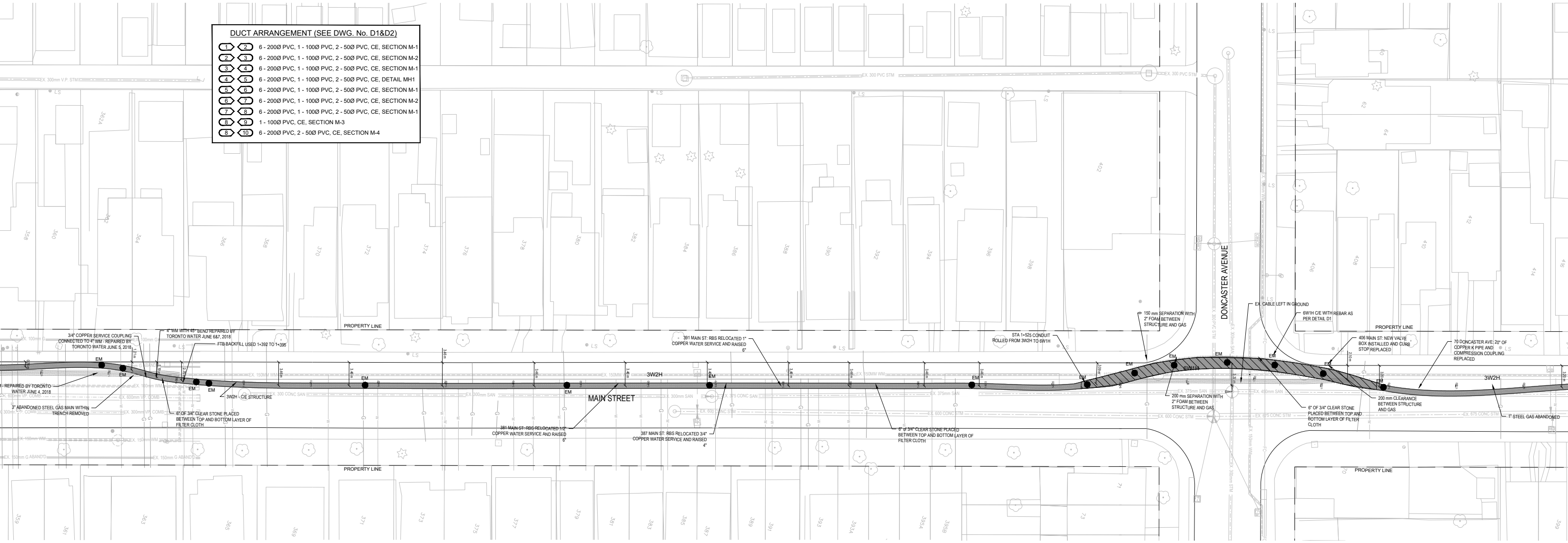


2W3H C/E WITH REBAR AS PER D-1 DETAIL
PROPERTY LINE
FTB BACKFILL USED 1+150 TO 1+163
EX. CABLE LEFT IN GROUND
PROPERTY LINE
2W3H ROLLED TO 3W2H AT STA 1+186 TO STA 1+190
BREAK OUT OF EXISTING MANHOLE COLLAR TO DEPTH OF 1.2m. U-FILL AND TEPMORARY ASPHALT PLACED ON TOP
326 MAIN ST: RELOCATED 1" COPPER WATER SERVICE AND RAISED 6"
300 mm CLEARANCE BETWEEN BELL AND STRUCTURE
6" of 3/4" CLEAR STONE PLACED BETWEEN TOP AND BOTTOM LAYER OF FILTER CLOTH
3W2H C/E STRUCTURE
PROPERTY LINE
EX. CABLE LEFT IN GROUND
346 MAIN ST: RBS RELOCATED 3/4" COPPER WATER SERVICE AND RAISED 10"
3" ABANDONED STEEL GAS MAIN WITHIN TRENCH REMOVED
2W3H
3W2H
3W2H
EM
3
6" OF 3/4" CLEAR STONE PLACED BETWEEN TOP AND BOTTOM LAYER OF FILTER CLOTH
EX. T.T.C. STREETCAR TRACKS
EX. T.T.C. STREETCAR TRACKS
EX. T.T.C. STREETCAR TRACKS
MAIN STREET
MAIN STREET
MAIN STREET
REMOVED 3" ABANDONED STEEL GAS MAIN WITHIN TRENCH
6" OF 3/4" CLEAR STONE PLACED BETWEEN A TOP AND BOTTOM OF FILTER CLOTH
348 MAIN ST: RBS RELOCATED 1" COPPER WATER SERVICE AND RAISED 6"
3W2H C/E STRUCTURE
4" WM
EX. 300mm V.P. STM SEWER
EX. 100mm G
EX. 75mm G ABAND'D
EX. 100mm WM
EX. 600mm VP. COMB
EX. 375mm VP. COMB
EX. 300mm VP. COMB
EX. 150mm WM
EX. 150mm G ABAND'D
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
LANE
LANE
LANE
LANE
MAIN STREET STATION
MAIN STREET TTC STATION
2526
2550
2554
2558
299
305
308
312
314
316
326
328
330
332
334
336
338
340
342
344
346
348
350
354
356
329
333
335
339.5
341
343
345
347
351
353



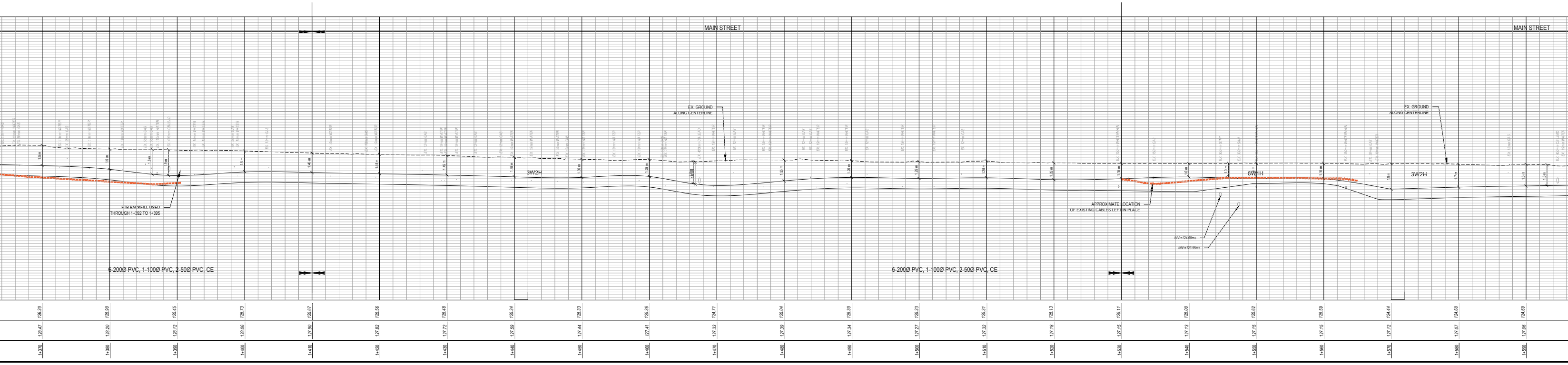
MAIN STREET
MAIN STREET
EX. GROUND ALONG CENTERLINE
EX. GROUND ALONG CENTERLINE
2W3H
2W3H
3W2H
3W2H
APPROXIMATE LOCATION OF EXISTING CABLES LEFT IN PLACE
APPROXIMATE LOCATION OF EXISTING CABLES LEFT IN PLACE
INV.=124.12m±
INV.=124.22m±
3
6-200Ø PVC, 1-100Ø PVC, 2-50Ø PVC, CE

126.32	129.58	1+140
126.79	129.59	1+150
127.00	129.75	1+160
127.00	129.65	1+170
126.00	129.64	1+180
(126.68)	129.63	1+190
127.00	129.64	1+200
127.00	129.56	1+210
127.17	129.47	1+220
127.18	129.38	1+230
127.32	129.49	1+240
127.13	129.41	1+250
126.90	129.33	1+260
126.73	129.21	1+270
126.62	129.17	1+280
126.62	129.17	1+290
126.60	129.05	1+300
126.45	128.87	1+310
126.40	128.79	1+320
126.36	128.77	1+330
126.52	128.65	1+340
126.44	128.58	1+350
126.31	128.49	1+360


PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
MAIN STREET
DONCASTER AVENUE
3W2H
3W2H
6W1H
EM
3/4" COPPER SERVICE COUPLING CONNECTED TO 4" WM - REPAIRED BY TORONTO WATER JUNE 5, 2018
4" WM WITH 45° BEND REPAIRED BY TORONTO WATER JUNE 6&7, 2018
FTB BACKFILL USED 1+392 TO 1+395
- REPAIRED BY TORONTO WATER JUNE 4, 2018
3" ABANDONED STEEL GAS MAIN WITHIN TRENCH REMOVED
3W2H - C/E STRUCTURE
6" OF 3/4" CLEAR STONE PLACED BETWEEN TOP AND BOTTOM LAYER OF FILTER CLOTH
391 MAIN ST: RBS RELOCATED 1" COPPER WATER SERVICE AND RAISED 6"
381 MAIN ST: RBS RELOCATED 1/2" COPPER WATER SERVICE AND RAISED 6"
387 MAIN ST: RBS RELOCATED 3/4" COPPER WATER SERVICE AND RAISED 4"
6" of 3/4" CLEAR STONE PLACED BETWEEN TOP AND BOTTOM LAYER OF FILTER CLOTH
STA 1+525 CONDUIT ROLLED FROM 3W2H TO 6W1H
150 mm SEPARATION WITH 2" FOAM BETWEEN STRUCTURE AND GAS
EX. CABLE LEFT IN GROUND
6W1H C/E WITH REBAR AS PER DETAIL D1
406 MAIN ST: NEW VALVE BOX INSTALLED AND CURB STOP REPLACED
70 DONCASTER AVE: 20" OF COPPER K PIPE AND COMPRESSION COUPLING REPLACED
200 mm SEPARATION WITH 2" FOAM BETWEEN STRUCTURE AND GAS
6" OF 3/4" CLEAR STONE PLACED BETWEEN TOP AND BOTTOM LAYER OF FILTER CLOTH
200 mm CLEARANCE BETWEEN STRUCTURE AND GAS
1" STEEL GAS ABANDONED
EX. 300mm V.P. STM
EX. 300 PVC STM
EX. 100mm G
EX. 150MM WM
EX. 100mm WM
EX. 600mm VP. COMB
EX. 300mm VP. COMB
EX. 150mm WM
EX. 150mm G ABAND'D
EX. 300mm SAN
EX. 300 CONC SAN
EX. 375 CONC SAN
EX. 375mm SAN
EX. 600 CONC STM
EX. 450mm SAN
EX. 675 CONC STM
EX. 300mm SAN
EX. 300mm STM
EX. 150mm WM
3.46 m
3.09 m
3.37 m
2.10 m
3.20 m
1.21 m
2.19 m
2.75 m
LS
358
360
362A
364
366
368
370
372
374
376
378
380
382
384
386
388
390
392
394
396
398
402
406
408
410
412
414
416
359
361
363
365
369
371
373
375
377
379
381
383
385
387
389
391
393
393A
395A
395B
71
73
70
399
60
62
64

DUCT ARRANGEMENT (SEE DWG. No. D1&D2)

1	2	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
2	3	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-2
3	4	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
4	5	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, DETAIL MH1
5	6	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
6	7	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-2
7	8	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
8	9	1 - 100Ø PVC, CE, SECTION M-3
8	10	6 - 200Ø PVC, 2 - 50Ø PVC, CE, SECTION M-4


MAIN STREET
MAIN STREET
EX. GROUND ALONG CENTERLINE
EX. GROUND ALONG CENTERLINE
3W2H
6W1H
3W2H
FTB BACKFILL USED THROUGH 1+392 TO 1+395
APPROXIMATE LOCATION OF EXISTING CABLES LEFT IN PLACE
INV.=124.68m±
INV.=123.95m±
6-200Ø PVC, 1-100Ø PVC, 2-50Ø PVC, CE
6-200Ø PVC, 1-100Ø PVC, 2-50Ø PVC, CE
126.20
125.90
125.45
125.73
125.67
125.56
125.48
125.34
125.33
125.36
124.71
125.04
125.30
125.23
125.31
125.13
125.11
125.00
125.62
125.59
124.44
124.60
124.69
128.47
128.20
128.12
128.06
127.90
127.82
127.72
127.59
127.44
127.41
127.33
127.39
127.34
127.27
127.32
127.18
127.15
127.13
127.15
127.15
127.12
127.07
127.06
1+370
1+380
1+390
1+400
1+410
1+420
1+430
1+440
1+450
1+460
1+470
1+480
1+490
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1+510
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1+530
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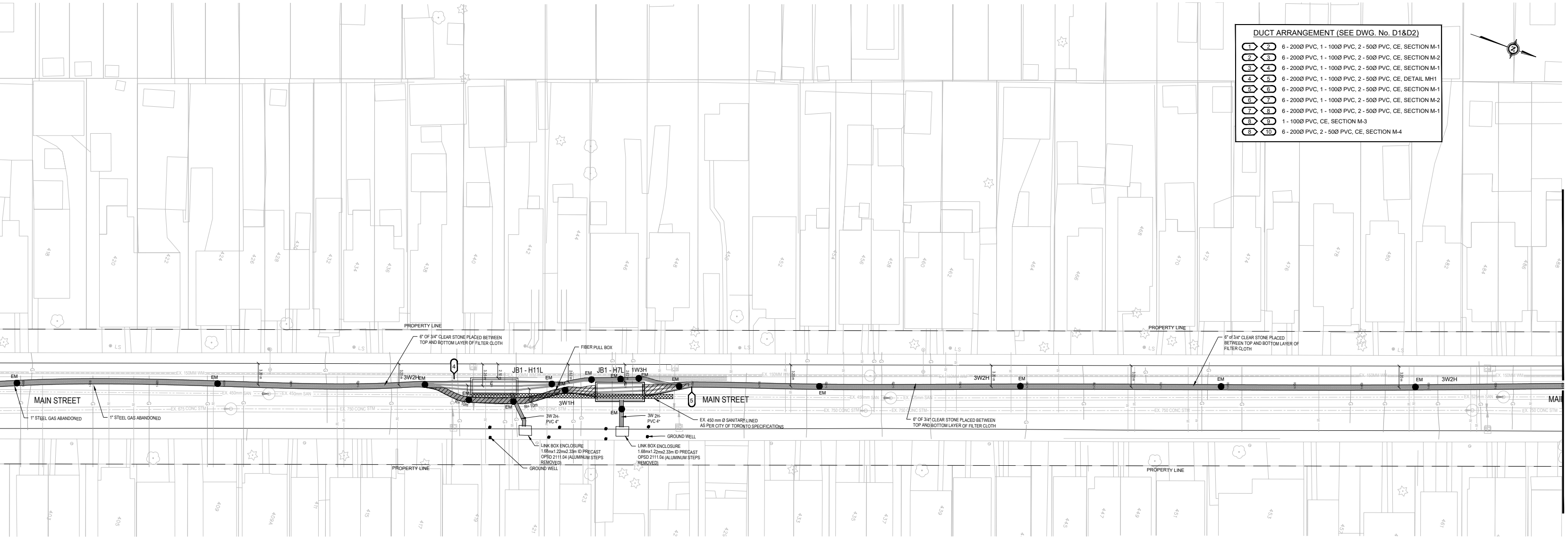
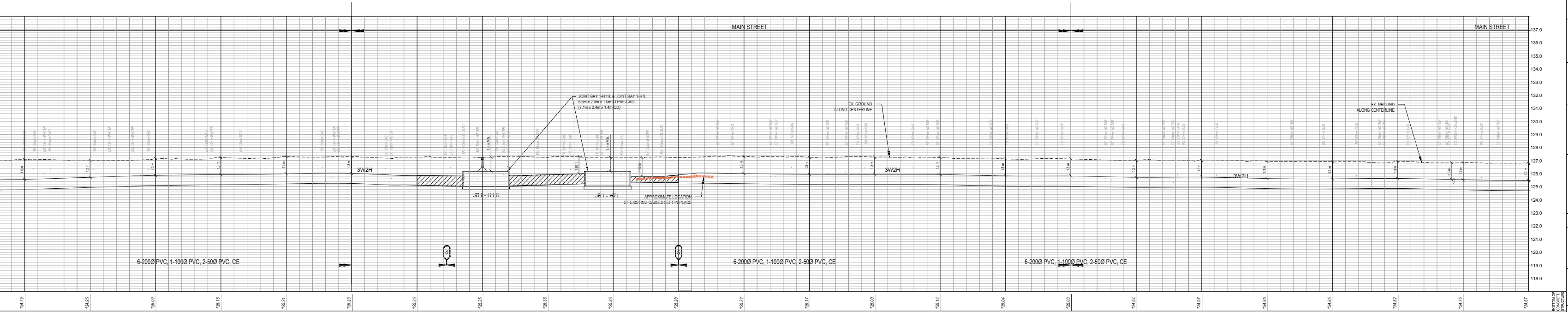
1+550
1+560
1+570
1+580
1+590


PROPERTY LINE
6" OF 3/4" CLEAR STONE PLACED BETWEEN TOP AND BOTTOM LAYER OF FILTER CLOTH
FIBER PULL BOX
JB1 - H11L
JB1 - H7L
1W3H
3W2H
3W1H
EM
R= 10m
4
5
MAIN STREET
1" STEEL GAS ABANDONED
EX. 150MM WM
EX. 750 CONC STM
3W 2H-PVC 4"
EX. 450 mm Ø SANITARY LINED AS PER CITY OF TORONTO SPECIFICATIONS
GROUND WELL
LINK BOX ENCLOSURE 1.68mx1.22mx2.33m ID PRECAST OPSD 2111.04 (ALUMINUM STEPS REMOVED)
6" OF 3/4" CLEAR STONE PLACED BETWEEN TOP AND BOTTOM LAYER OF FILTER CLOTH
STA. 1+830
MATCH LINE
MAI

DUCT ARRANGEMENT (SEE DWG. No. D1&D2)

1	2	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
2	3	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-2
3	4	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
4	5	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, DETAIL MH1
5	6	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
6	7	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-2
7	8	6 - 200Ø PVC, 1 - 100Ø PVC, 2 - 50Ø PVC, CE, SECTION M-1
8	9	1 - 100Ø PVC, CE, SECTION M-3
8	10	6 - 200Ø PVC, 2 - 50Ø PVC, CE, SECTION M-4


MAIN STREET
MAIN STREET
137.0
136.0
135.0
134.0
133.0
132.0
131.0
130.0
129.0
128.0
127.0
126.0
125.0
124.0
123.0
122.0
121.0
120.0
119.0
118.0
JOINT BAY 1-H11L & JOINT BAY 1-H7L 6.6m x 2.0m x 1.0m ID PRE-CAST (7.1m x 2.4m x 1.4m OD)
EX. GROUND ALONG CENTERLINE
3W2H
JB1 - H11L
JB1 - H7L
1.0 m MIN.
APPROXIMATE LOCATION OF EXISTING CABLES LEFT IN PLACE
4
5
6-200Ø PVC, 1-100Ø PVC, 2-50Ø PVC, CE

℄ CHAINAGE	EX. C/L GROUND ELEVATION	BOTTOM OF CONCRETE STRUCTURE
1+600	127.06	124.79
1+610	127.02	124.95
1+620	127.15	125.09
1+630	127.22	125.15
1+640	127.28	125.21
1+650	127.32	125.23
1+660	127.25	125.25
1+670	127.23	125.35
1+680	127.23	125.35
1+690	127.23	125.35
1+700	127.22	125.28
1+710	127.30	125.22
1+720	127.24	125.17
1+730	127.24	125.00
1+740	127.23	125.14
1+750	127.12	125.04
1+760	127.11	125.03
1+770	127.02	124.94
1+780	127.03	124.97
1+790	126.92	124.85
1+800	126.90	124.85
1+810	126.93	124.82
1+820	126.82	124.75
1+830	126.76	124.67

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

	REVISIONS	BY	DATE	APPR.
1.	AS-RECORDED DRAWINGS	J.C.	20/02/11	

LEGEND

———	EXISTING FRONT OF CURB
- - - - -	EASEMENT LIMITS
— — —	PROPERTY LINE
B	EXISTING BELL
G	EXISTING GAS
FC	EXISTING FIBER CABLE CONDUIT
HONI	EXISTING HYDRO ONE LINE
THES	EXISTING TORONTO HYDRO LINE
H	EXISTING ELECTRIC CABLE/ CONDUIT
SL	EXISTING STREET LIGHT CABLE
T	EXISTING TELE COMMUNICATION
SAN	EXISTING SANITARY SEWER
STM	EXISTING STORM SEWER
COMB	EXISTING COMBINED SEWER
WM	EXISTING WATERMAIN
	TOP OF SLOPE
M	EX. MONITORING WELL
W	EX. UTILITY HANDWELL
BHC	BEGINNING OF HORIZONTAL CURVE
EHC	END OF HORIZONTAL CURVE
BVC	BEGINNING OF VERTICAL CURVE
EVC	END OF VERTICAL CURVE
L	LENGTH OF CURVE
Δ	CHANGE IN DIRECTION (DELTA)
R	RADIUS OF CURVE AT CENTRE OF DUCT
● P	POLE MARKER
● B	BRONZE DISC MARKER
● EM	BURIED ELECTRONIC MARKER
▨	REINFORCED DUCT BANK SECTIONS

KEY PLAN
NTS

MUNICIPALITY
TORONTO

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Markham, Ontario L3R 5Y8
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E ytomail@ghd.com **W** www.ghd.com

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TORONTO, ON M1X 1E4
Tel: (416) 298-9977
Fax: (416) 298-2907

OWNER
hydro one
Hydro One Networks Inc.
ENGINEERING & CONSTRUCTION SERVICES

N. S. WONG
2020-02-28

HYDRO ONE REFERENCE NUMBERS:
AR 23137

PROJECT TITLE
2x230 KV CABLE CIRCUITS H7L/H11L
(OPERATED @ 115 KV) IN CONCRETE
ENCASED DUCT BANK BETWEEN
MAIN TS AND LUMSDEN JCT
AS-RECORD DRAWINGS

SHEET TITLE
STEPHENSON AVE/MAIN STREET
STA. 0+930 TO 1+830

DESIGNED	DRAWN	CHECKED
N.W.	J.C.	N.W.

SCALE	DATE
H 1: 200 V 1:100	NOV 2019

PROJECT NUMBER	DWG. NUMBER
11139931	1