

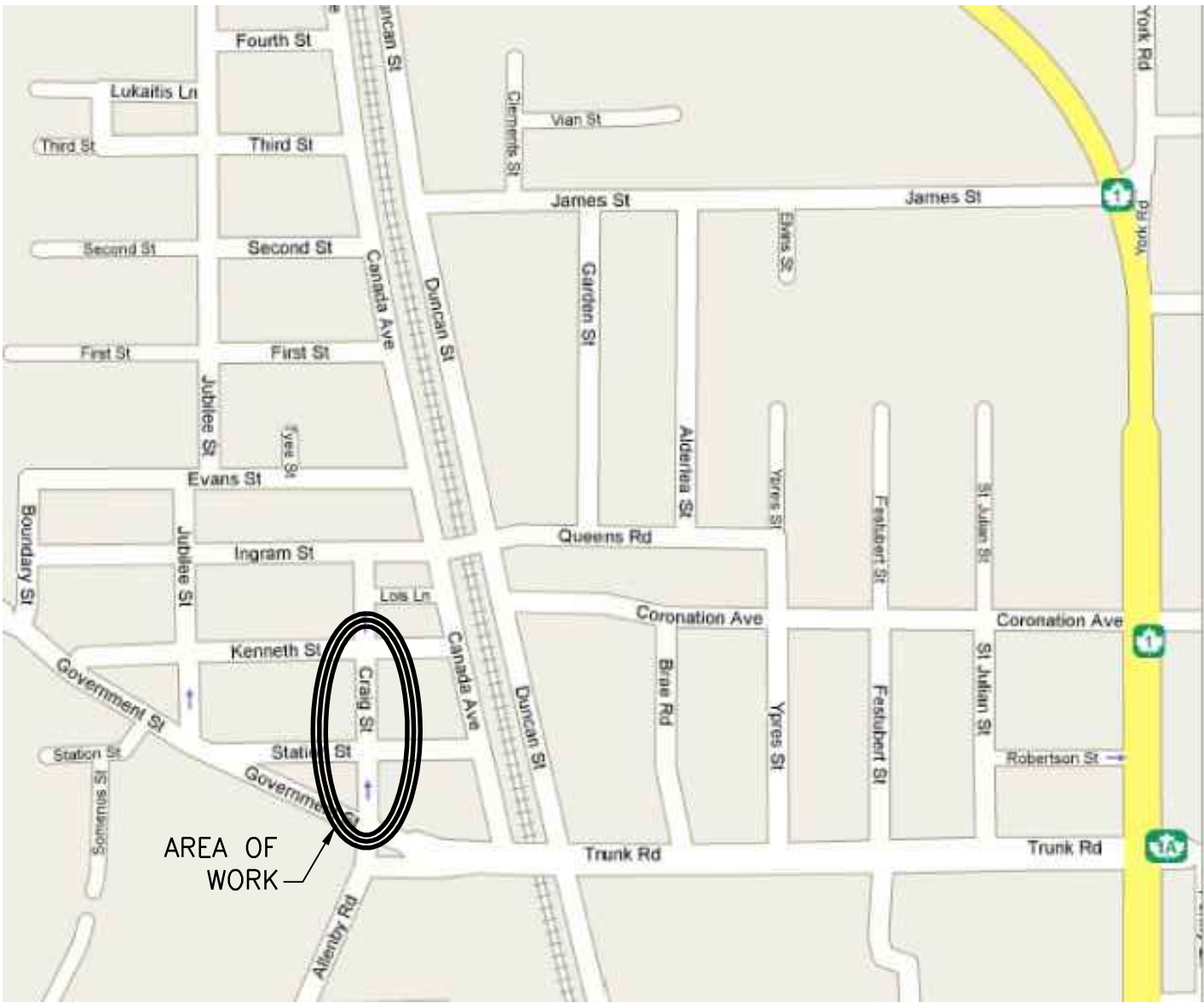


CITY OF DUNCAN

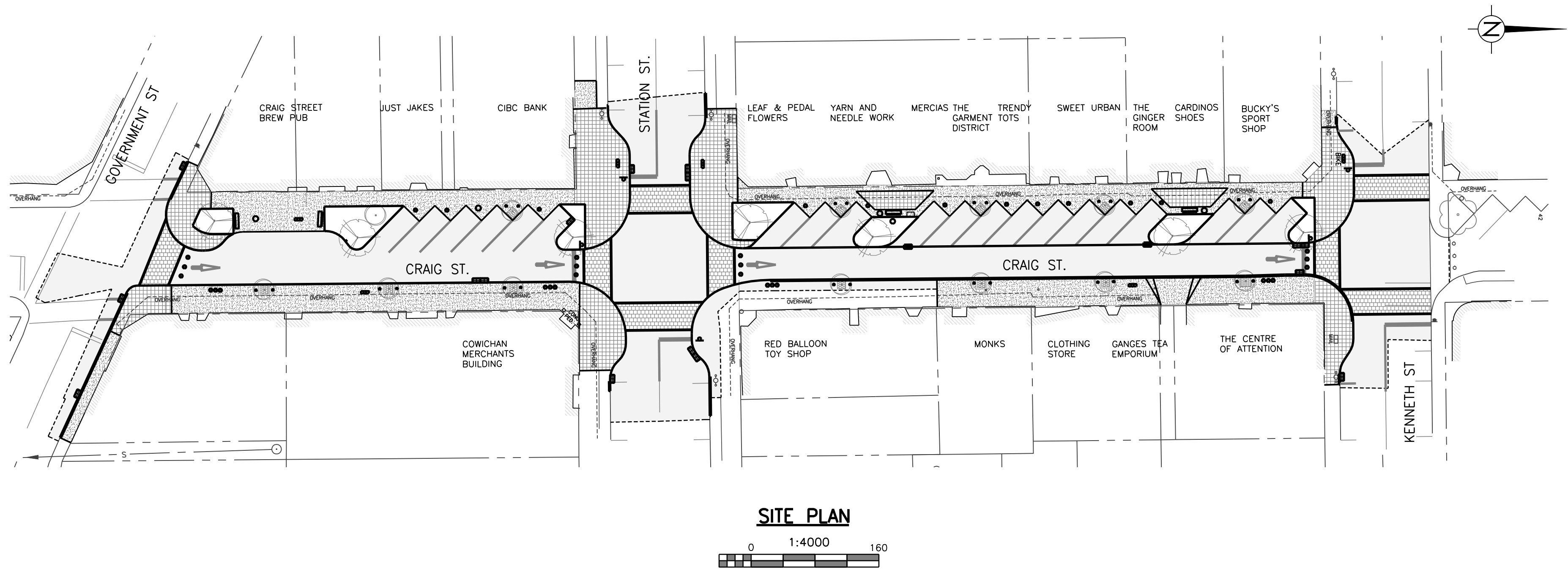
CRAIG STREET REVITALIZATION

PHASE 2

CIVIL: 1ST TEAM CONSULTING LTD.
LANDSCAPE: 1ST TEAM CONSULTING LTD.
ELECTRICAL: APPLIED ENGINEERING SOLUTIONS LTD.
STRUCTURAL: HEROLD ENGINEERING LIMITED
GEOTECHNICAL: LEVELTON CONSULTANTS LTD.



KEY PLAN
SCALE N.T.S.



DRAWING LIST	
DRAWING No.	TITLE
CIVIL	
322-03-C.01	GEOMETRICS & SIGNAGE
322-03-C.02	PLAN AND PROFILE
322-03-C.03	WATER SCHEMATIC & METER DETAILS
322-03-C.04	GENERAL NOTES & TYPICAL DETAILS
322-03-C.05	GRADING
322-03-C.06	CROSS SECTIONS
LANDSCAPE	
322-03-L.01	LANDSCAPE PLAN
322-03-L.02	LANDSCAPE DETAILS
ELECTRICAL	
E1	ELECTRICAL SITE PLAN
E2	ELECTRICAL DETAILS
STRUCTURAL	
322-03-S.01	GENERAL NOTES, SECTIONS, & PARTIAL PLAN

GENERAL NOTES (CIVIL WORKS):

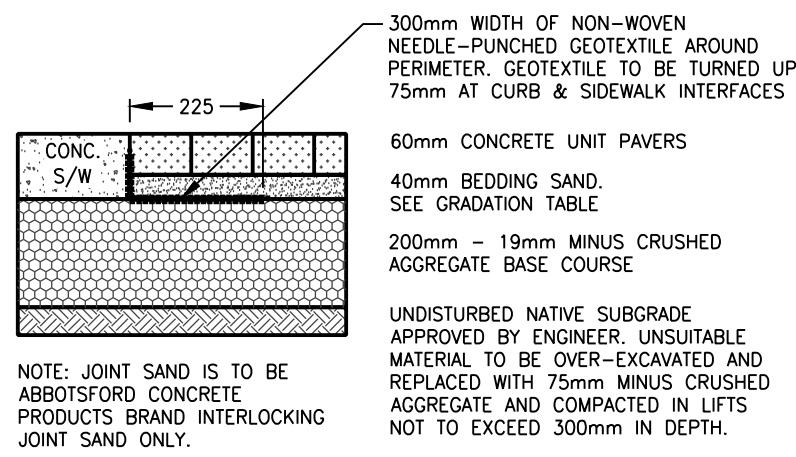
- ALL CONSTRUCTION AND MATERIALS IN ACCORDANCE WITH THE LATEST EDITION OF MASTER MUNICIPAL CONTRACT DOCUMENTS (MMCD) STANDARD SPECIFICATIONS & DRAWINGS, THE B.C. PLUMBING CODE, AND MINISTRY OF TRANSPORTATION STANDARDS, EXCEPT AS OTHERWISE NOTED IN THESE DRAWINGS OR THE CONTRACT DOCUMENTS.
- ELEVATIONS ARE GEODETIC.
- ALL INVERT GUTTERS ARE 600mm WIDE, REINFORCED TO SAANICH STD. DWG. R13.
- REFER TO GEOTECHNICAL REPORTS TITLED:

"GEOTECHNICAL ASSESSMENT – CRAIG STREET, DUNCAN, BC PROPOSED REVITALIZATION – GOVERNMENT STREET TO KENNETH STREET" DATED 30 JUNE 2006 BY LEVELTON CONSULTANTS LTD. AND,

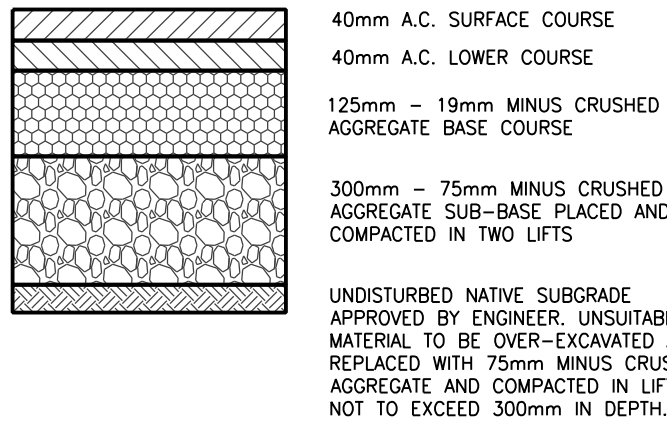
"GEOTECHNICAL COMMENTS – PRELIMINARY BUILDING FOUNDATION REVIEW, PROPOSED REVITALIZATION – CRAIG STREET, DUNCAN, BC" DATED 29 APRIL 2009 BY LEVELTON CONSULTANTS LTD.

DRAINAGE AND UTILITY NOTES:

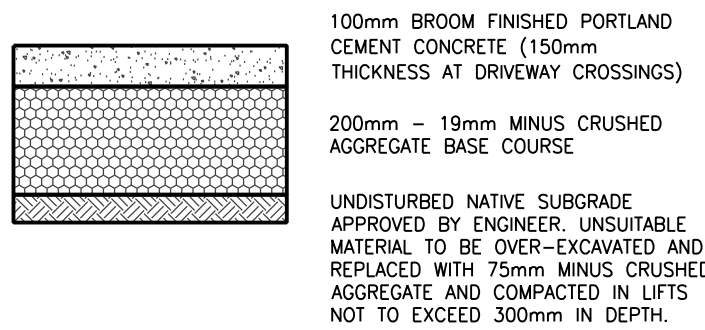
- EXISTING UTILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PROVIDED BY UTILITY COMPANIES AS-BUILT INFORMATION & DRAWINGS. 1ST TEAM CONSULTING AND/OR CITY OF DUNCAN ACCEPT NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED.
- OVERHEAD WIRING NOT SHOWN ON DRAWINGS.
- CATCH BASINS AND MANHOLE COVERS HAD GEOTEXTILE CLOTH PLACED BETWEEN FRAME AND GRATES TO REDUCE INFLOW OF SEDIMENT, UNTIL SITE WAS PAVED AND LANDSCAPED.
- ALL CATCH BASINS HAVE "BICYCLE FRIENDLY" GRATES AS PER MMCD STD. DWG. S11.



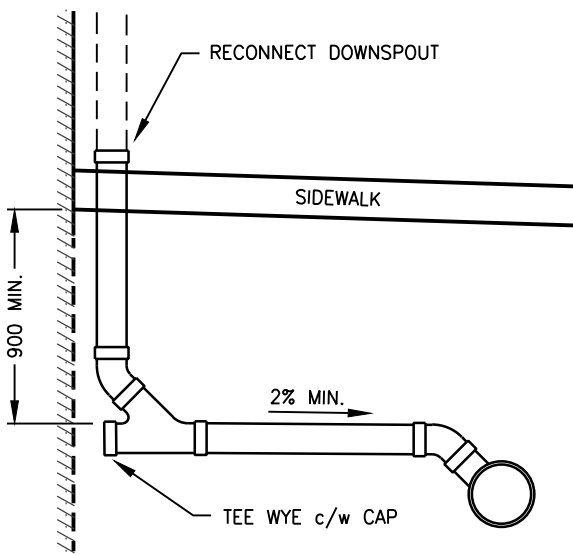
TYPICAL SECTION:
CONCRETE UNIT PAVER PEDESTRIAN ONLY
SCALE N.T.S.



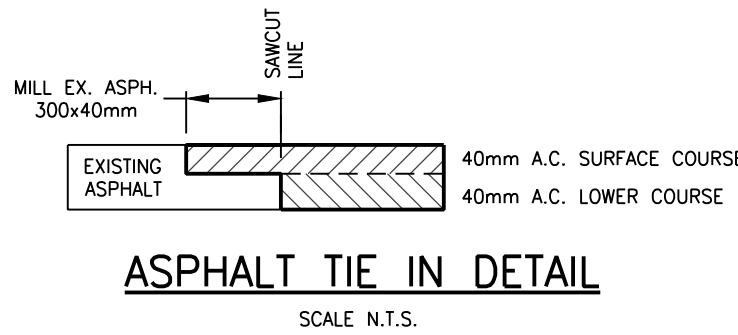
TYPICAL SECTION: ASPHALT TRAVELED
PORTIONS & PARKING STALLS
SCALE N.T.S.



TYPICAL SECTION: SIDEWALKS
CONCRETE CAST IN PLACE
SCALE N.T.S.



DOWNSPOUT RECONNECTION DETAIL
SCALE N.T.S.

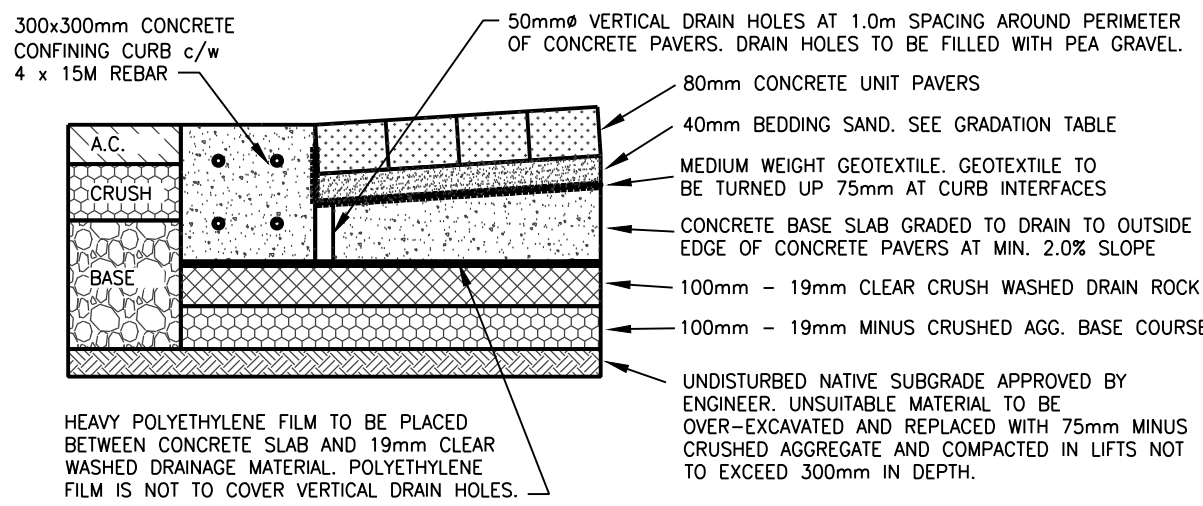


ASPHALT TIE IN DETAIL
SCALE N.T.S.

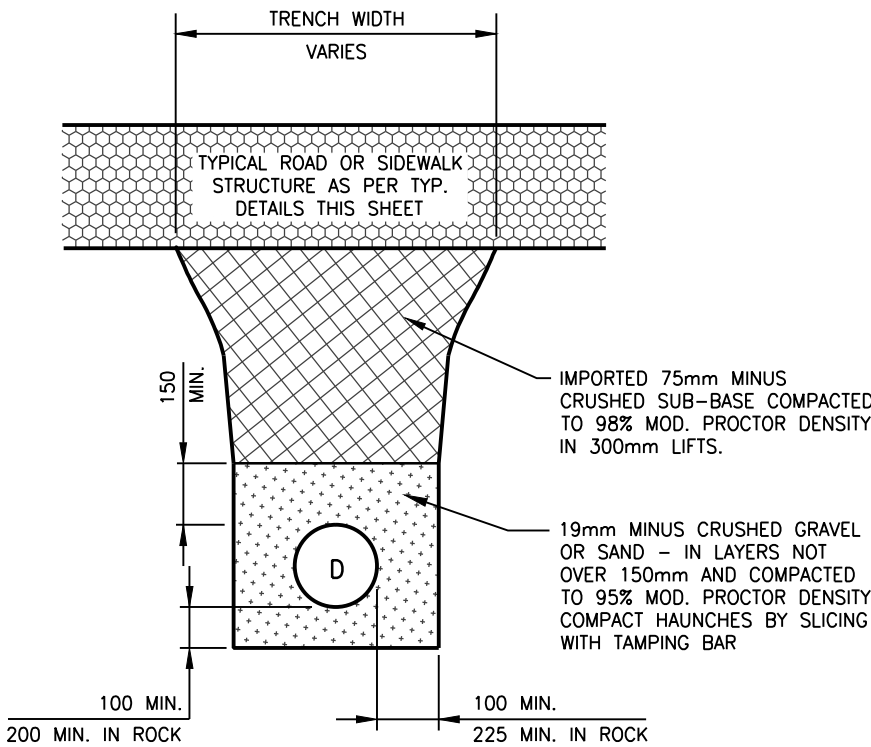
MATERIAL GRADATION FOR BEDDING SAND CSA A23.1 (FA1)

SEIVE SIZE	% PASSING
10.0mm	100
5.0mm	95-100
2.5mm	80-100
1.25mm	50-90
0.63mm	25-65
0.315mm	10-35
0.160mm	2-10
0.080mm	0-1

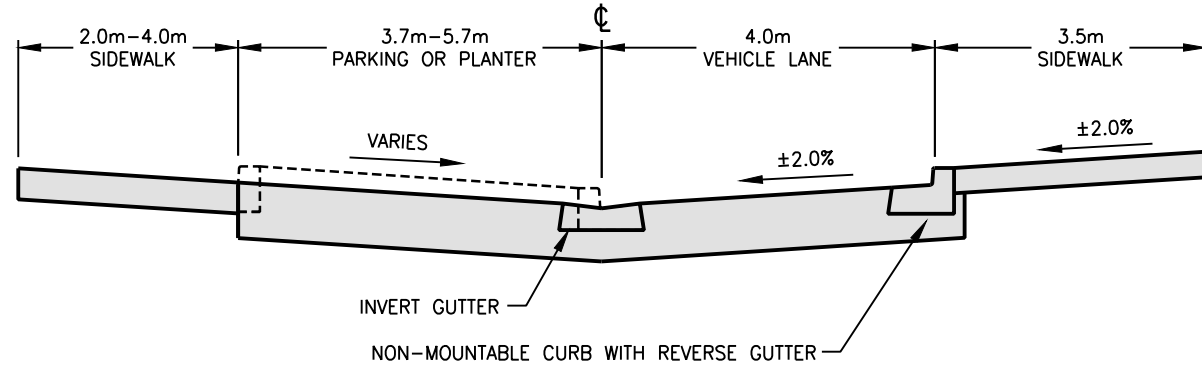
- NOTES:
- BEDDING SAND NOT TO INCLUDE LIMESTONE MATERIAL
 - MASONRY SAND NOT TO BE USED FOR BEDDING MATERIAL



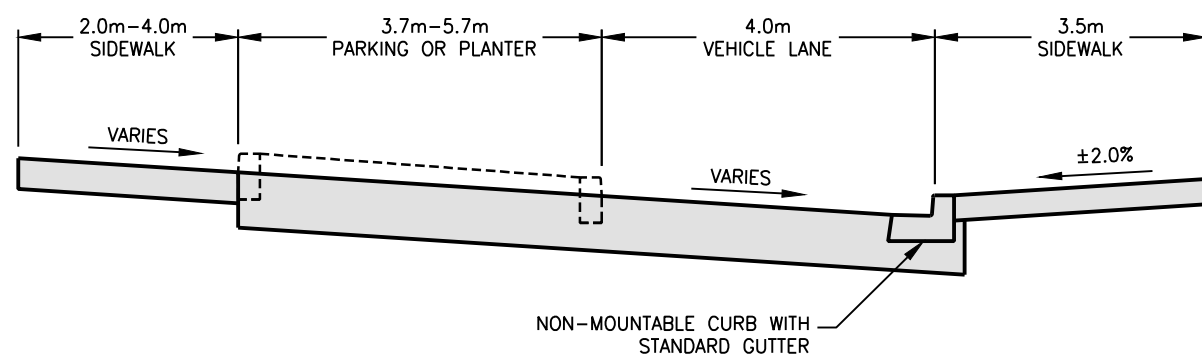
TYPICAL SECTION:
CONCRETE UNIT PAVER CROSSWALKS
SCALE N.T.S.



TYPICAL TRENCH DETAIL
SCALE N.T.S.



TYPICAL CROSS SECTION – CRAIG STREET
STATION TO KENNETH (NORTH BLOCK)
SCALE N.T.S.



TYPICAL CROSS SECTION – CRAIG STREET
GOVERNMENT TO STATION (SOUTH BLOCK)
SCALE N.T.S.

SILT / SAND

PIPE Ø	BEND			
	11'	22'	45'	90'
100	0.3	0.3	1.8	4.3
150	0.6	1.2	2.4	5.8
200	0.6	1.5	3.0	7.6
250	0.9	1.8	3.7	9.1
300	0.9	2.1	4.3	10.7

WET CLAY

PIPE Ø	BEND			
	11'	22'	45'	90'
100	0.3	0.9	1.8	4.6
150	0.6	1.2	2.7	6.4
200	0.9	1.8	3.7	8.5
250	0.9	2.1	4.3	10.4
300	1.2	2.4	4.9	12.2

NOTES:

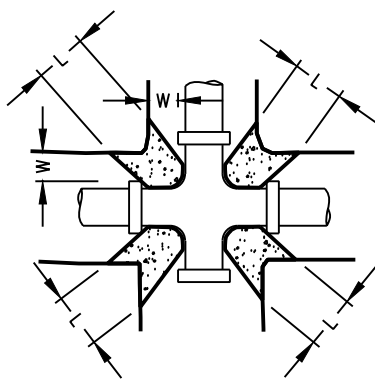
- ALL LENGTHS IN METRES
- ALL WATERMAIN BENDS HAVE RESTRAINERS AS PER RESTRAINER SCHEDULE UNLESS SPECIFIED OTHERWISE.
- PIPE MATERIAL: PVC

JOINT RESTRAINERS TABLE

SCALE N.T.S.

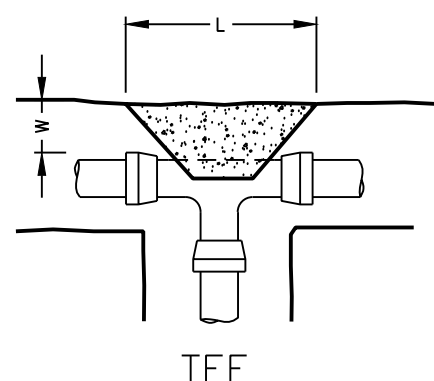
MINIMUM THRUST AREAS FOR FITTINGS AT 1030 KPA PRESSURE AND SOILS WITH MINIMUM BEARING OF 96 KPA (NOT TO BE USED FOR SOFT CLAY, MUCK, PEAT ETC.)

TYPE OF FITTING	FITTING SIZE	OUTSIDE FITTING BEARING FACE	RECESS TRENCH WALL	LENGTH	HEIGHT
	D	W	W	L	H
45° BEND	150	300		400	460
	200	350		610	610
	250	380		760	760
	300	400		920	920
CROSS	150	300		610	460
	200	350		760	610
	250	380		990	760
	300	400		1220	920
TEE	150	300		610	460
	200	350		760	610
	250	380		990	760
	300	400		1220	920



CROSS

FOR CROSSES USE VALUE FOR 45° BEND IN EACH QUADRANT



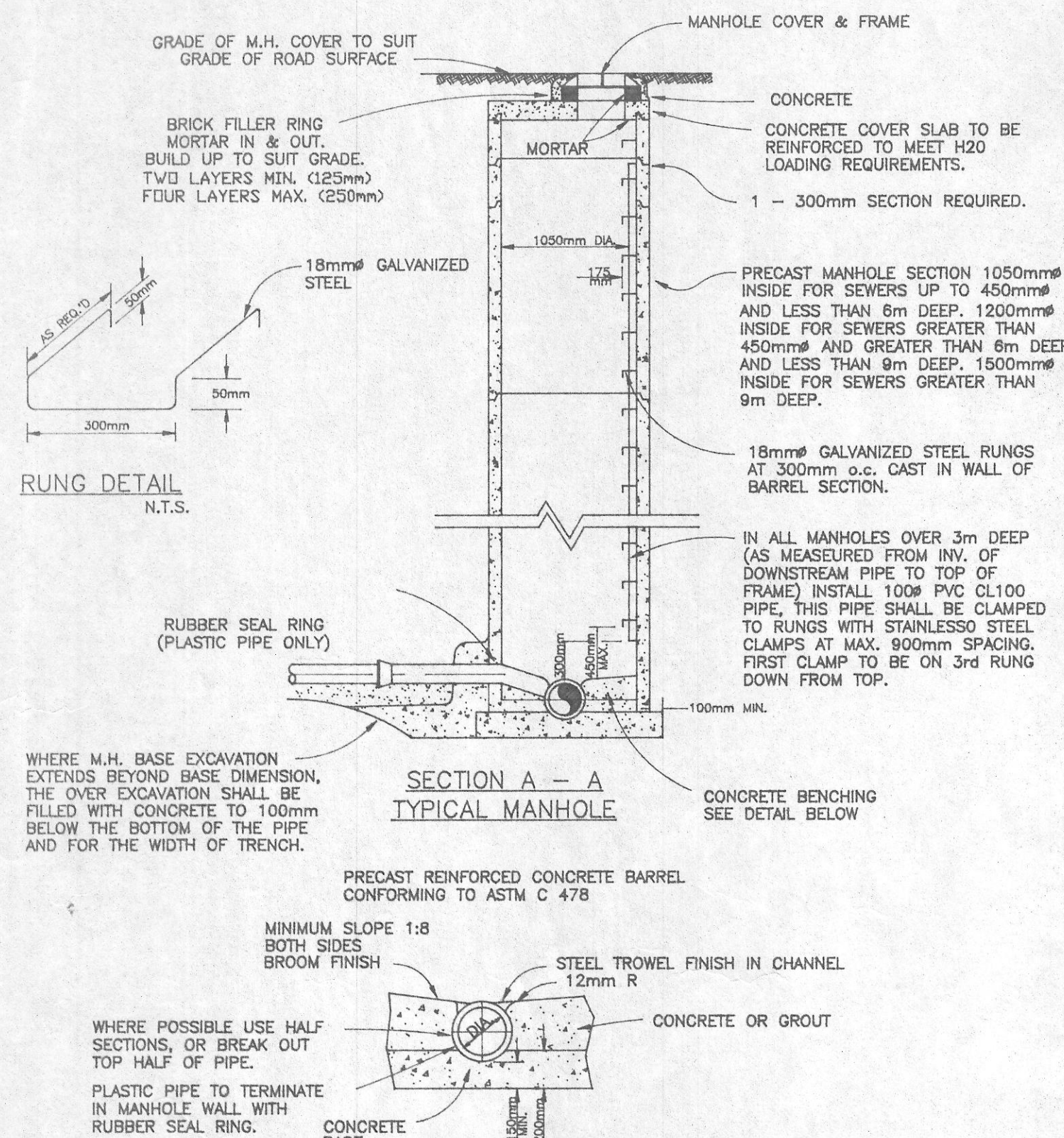
TEE

CONCRETE TO HAVE 28 DAY COMPRESSIVE STRENGTH OF 20 MPa

THRUST BLOCK DETAILS

SCALE N.T.S.

No.	DATE	REVISION	ENGR	EXISTING	PROPOSED	EXISTING	PROPOSED	NOTES	ENGINEER	DESIGN	CLIENT	TITLE
A	MAY 11, 2009	ISSUED FOR 95% DESIGN	JESP	①	MANHOLE	PROPERTY LINE	---			JB	CITY OF DUNCAN	GENERAL NOTES & TYPICAL DETAILS
B	MAY 21, 2009	ISSUED FOR TENDER	DO	■	CLEANOUT	ROAD CURB	---			GPA		
C	JUNE 26, 2009	ISSUED FOR CONSTRUCTION	JESP	■	CATCHBASIN	SEWER	---			JESP		
D	FEB 03, 2010	ASBUILT	JESP	■	DITCH	FORCEMAIN	---			APR 2009		
				■	CULVERT	DRAIN	---				PROJECT	CRAIG STREET REVITALIZATION PHASE 2
				■	OUTLET	WATER	---					DRAWING NO. 322-03-C.04
				■	SILT TRAP	H/T/C	---					SHEET
				■	VALVE	GAS	---					REV
				■	HYDRANT	DRIVEWAY	---					D
				■	WATER METER	TOP SLOPE	---					
				■	POLE	BOTTOM SLOPE	---					
				■	LUMINAIRE	NOPOST	---					
				■	TRAFFIC LIGHT	FENCE	---					
				■	MONUMENT							

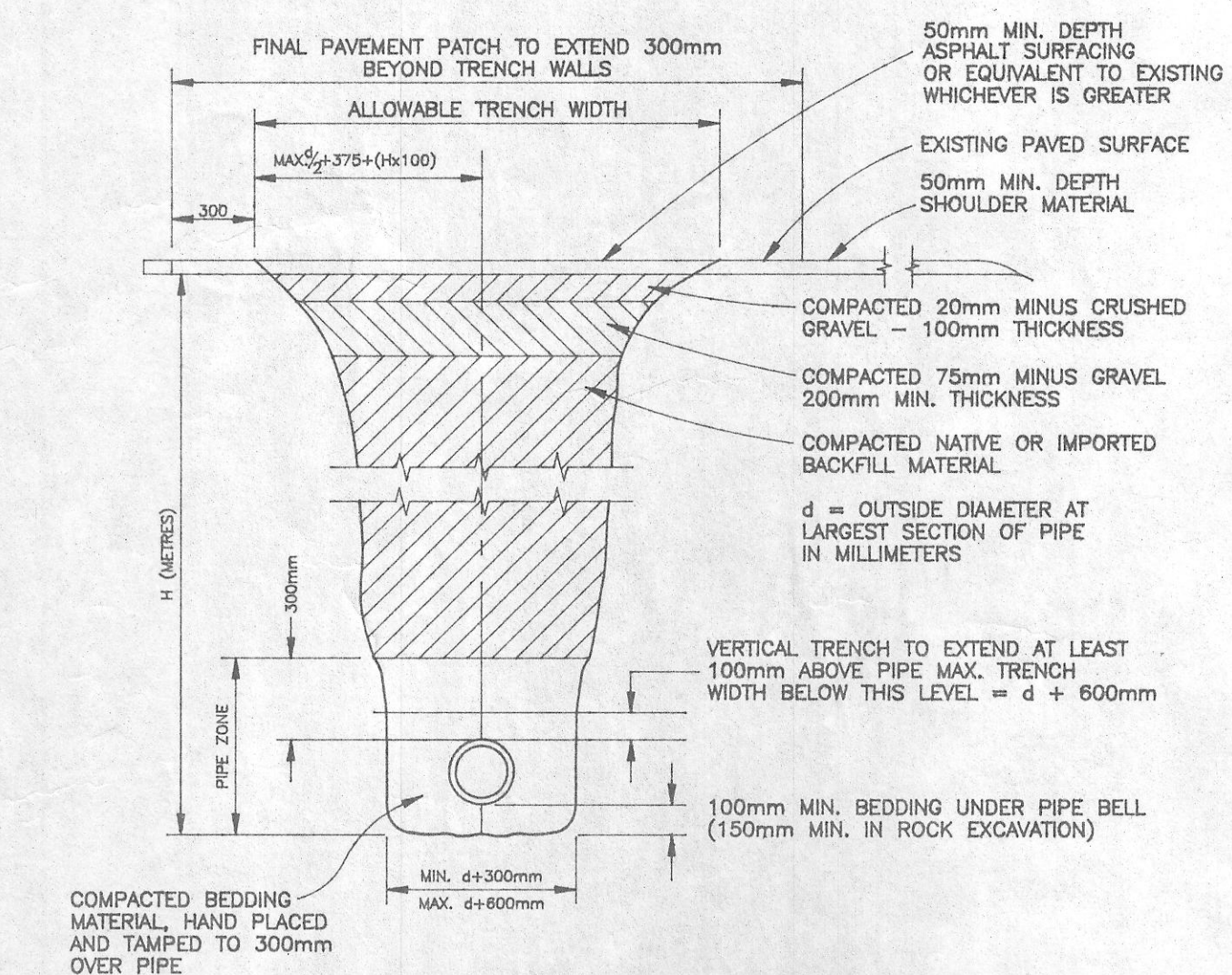


NOTES:

1. FOR MANHOLE BASE DETAILS ON SEWERS GREATER THAN 375mm DIA. SEE DWG. S1

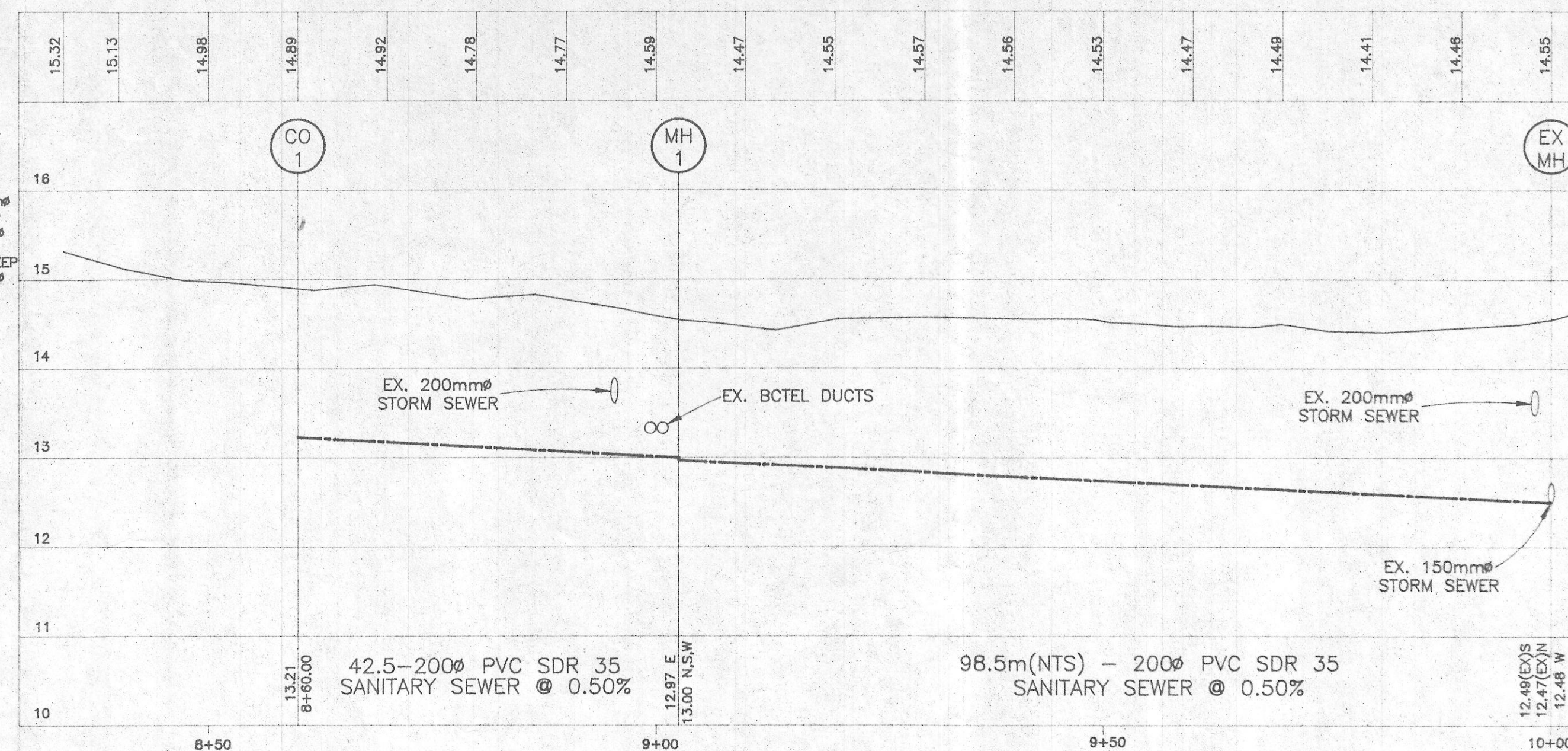
TYPICAL MANHOLE DETAILS FOR LATERALS TO 375mm DIA. STANDARD PRECAST TYPE.

N.T.S.

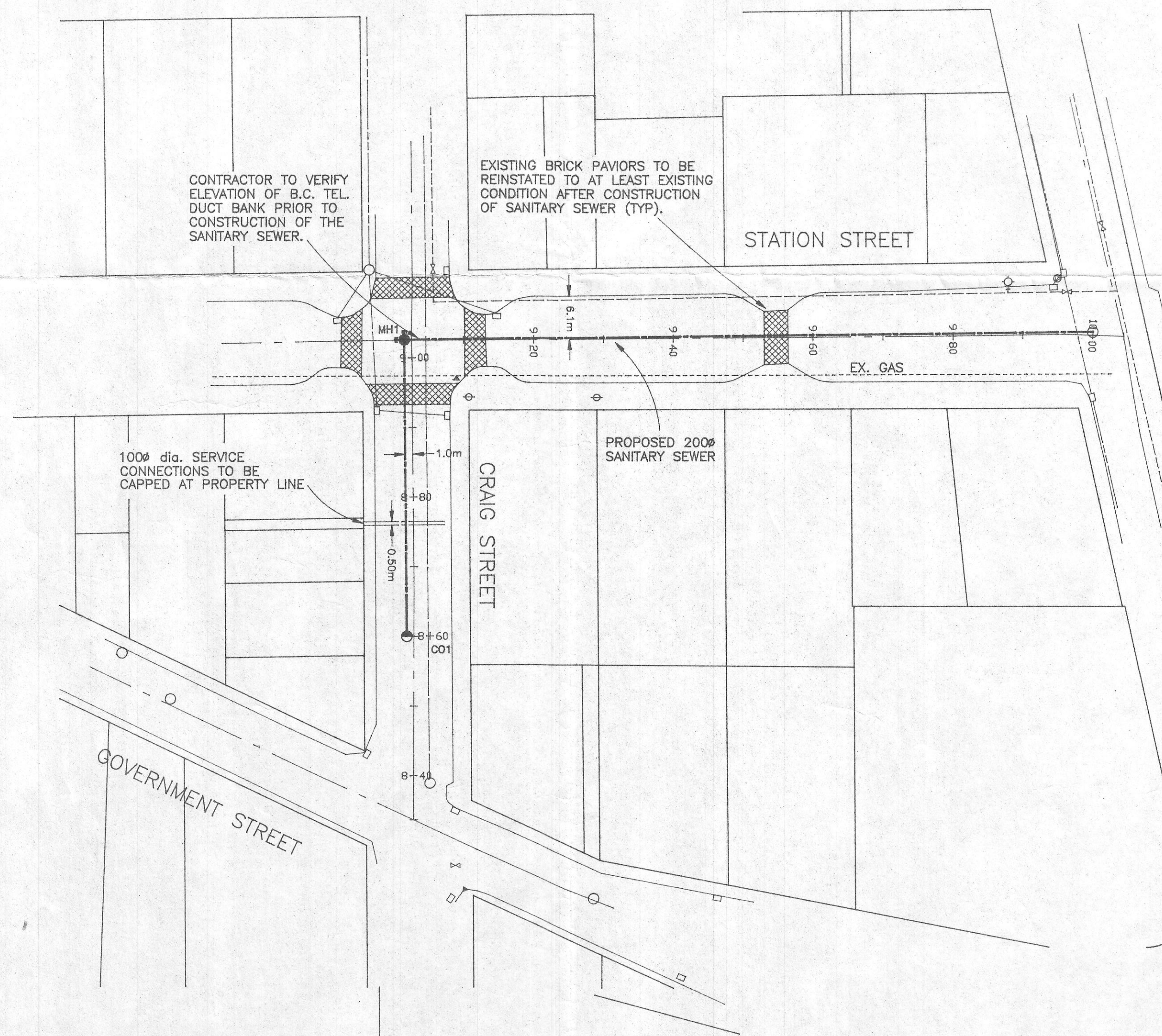


TRENCH CROSS-SECTION(TYPICAL)

N.T.S.

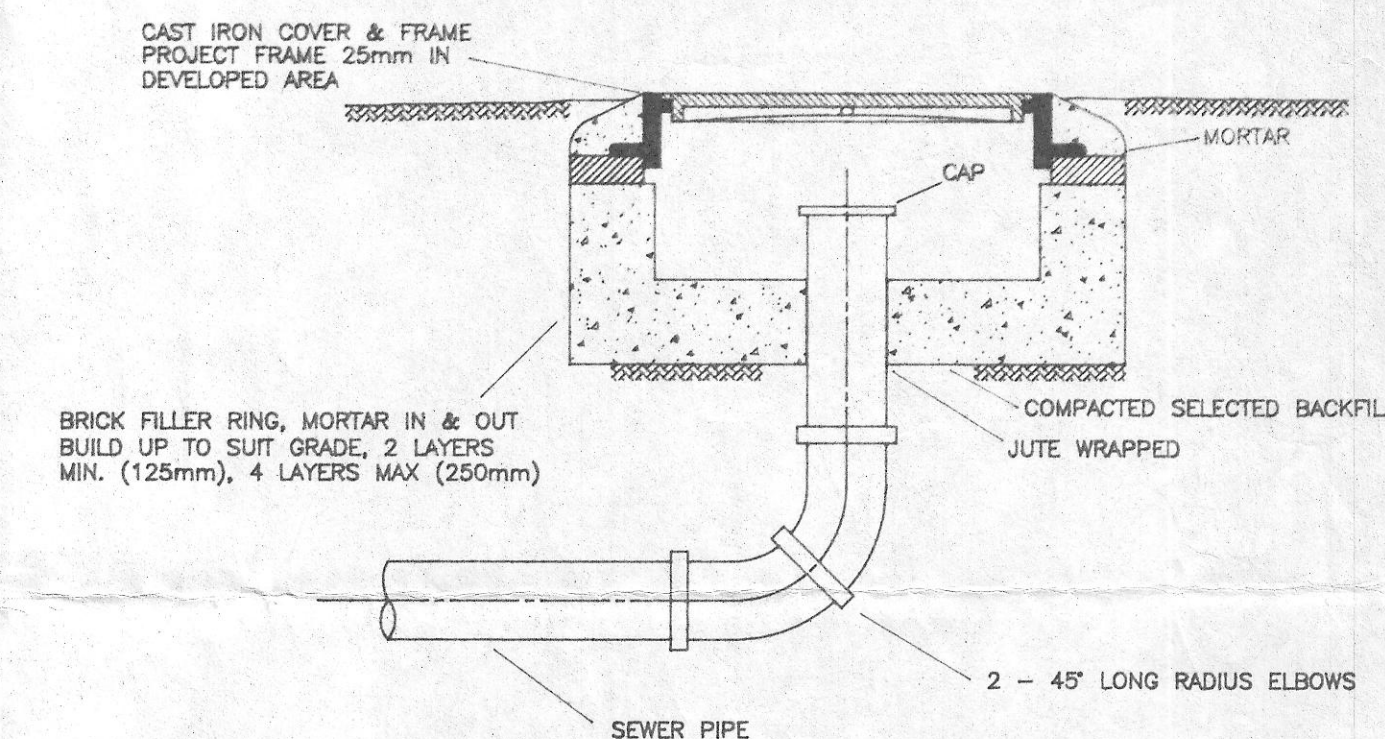


LOCATION PLAN



CLEANOUT STRUCTURE - TYPE 1 ALTERNATE 2

N.T.S.



- NOTES:
1. PRECAST SECTION OF 800mm DIA CONCRETE PIPE AND DONUT MAY BE USED INSTEAD OF Poured IN PLACE BOX SHOWN.
 2. USE WHERE NO SERVICE EXTENSION IS REQUIRED.
 3. FRAME AND COVER - VICTORIA FOUNDRIES LTD. TYPE No. 10 - 26 OR EQUIVALENT.

- NOTES:
1. ALL WORK AND MATERIALS SHALL BE IN COMPLIANCE WITH THE CONTRACT SPECIFICATIONS AND DRAWING. ALTERNATIVES MAY BE APPROVED BY THE ENGINEER IF APPROPRIATE.
 2. LOCATION OF ALL UTILITIES ARE APPROXIMATE AND SHOULD BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

No.	DATE	REVISION	ENGR	LEGEND							
01	23.12.92	REVISED AS PER CITY COMMENTS	WDFF	PROP.		EXIST.		PROP.		EXIST.	
						WATERMAIN				HYDRANT	
						STORM SEWER				ABOVE GROUND FLUSHOUT	
						SANITARY SEWER				BELOW GROUND FLUSHOUT	
						GAS MAIN				CATCHBASIN	
						ELECTRICAL DUCT				MANHOLE	
						CULVERT & DITCH				CLEANOUT	
						DITCH INLET/OUTLET				HYDRO POLE	
						SWALE				CAP	
						EDGE OF PAVEMENT				PLUG	
						VALVE BOX				STREETLIGHT	
						LIMIT OF CONSTRUCTION				FENCE	

NOTES:

1. ELEVATIONS ARE BASED ON MON No. 83H6286 LOCATED AT THE INTERSECTION OF CANADA AVE. AND STATION STREET. ELEV. 14.346m.
2. THE LEGAL PLAN HAS BEEN SUPERIMPOSED OVER THE TOPOGRAPHIC SURVEY AND IS TO BE CONSIDERED AS APPROXIMATE ONLY.

ENGINEER	DESIGN	W.D.F.P.	CLIENT	CITY OF DUNCAN
	DRAWN	R.P.Z.		
	TRACED			
	CHECKED			
	DATE	NOV. 1992		
SCALES	1:500 H - 1:50 V			
	CRAIG STREET SANITARY SEWER LINE			

TITLE	SANITARY SEWER PLAN AND PROFILE STATION ST. AND CRAIG ST.			DUNCAN & ASSOCIATES ENGINEERING LTD
REV. No.	PROJECT No.	DWG. No.	QTY PLAN FILE No.	
01	NO01-145	01		

AB100870