

PLACE IRRIGATION LATERALS MAX 450MM OFF THE BACK OF THE HEADSTONES  
 INSTALL SPRINKLERS CENTERED IN EACH ROW.  
 OFFSET THE SPRINKLER FROM LATERAL IF NEEDED.  
 PLACE SPRINKLERS AT GAPS BETWEEN HEADSTONES TO REDUCE BLOCKING OF THE STREAMS.

chain link fence

TOOL SHED

NEW HOSE-BIB.

INSTALL DCVA IN EXISTING VAULT.

GROUNDKEEPER'S OFFICE

approximate position of septic field

"Cross of Sacrifice"

well

MAIN LOCATION DIAGRAMMATIC. LOCATE IN PLANTING TIGHT TO BACK OF CURB.

DRIP-LINE AROUND CHAPEL

"Obelisk"

wrought iron gate

rock ret. wall (1.4m)

retaining wall low brick

MAIN LOCATION DIAGRAMMATIC. LOCATE IN PLANTING TIGHT TO BACK OF CURB.

- 1 35.2 40mm
- 2 27.4 40mm
- 3 32.5 40mm

HB-1 20mm

NO.	DATE	BY	CHD.	REVISION
1.	03/05/2021	SRG	SRG	FOR REVIEW
2.	03/15/2021	SRG	SRG	REVISION
3.	03/30/2021	SRG	SRG	REVISION
4.	04/07/2021	SRG	SRG	REVISION
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SCALE		1 : 125		

TYPE	DESCRIPTION
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PAPER	ARCH FULL BLEED D (24.00 X 36.00 INCHES)
FILE #	030521SG

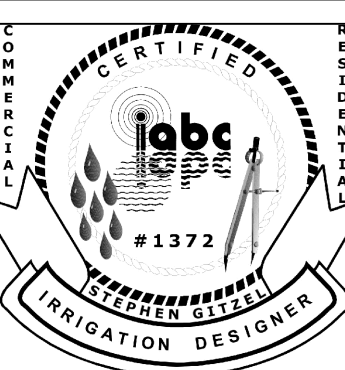
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CONSULTANT



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IIABC SEAL

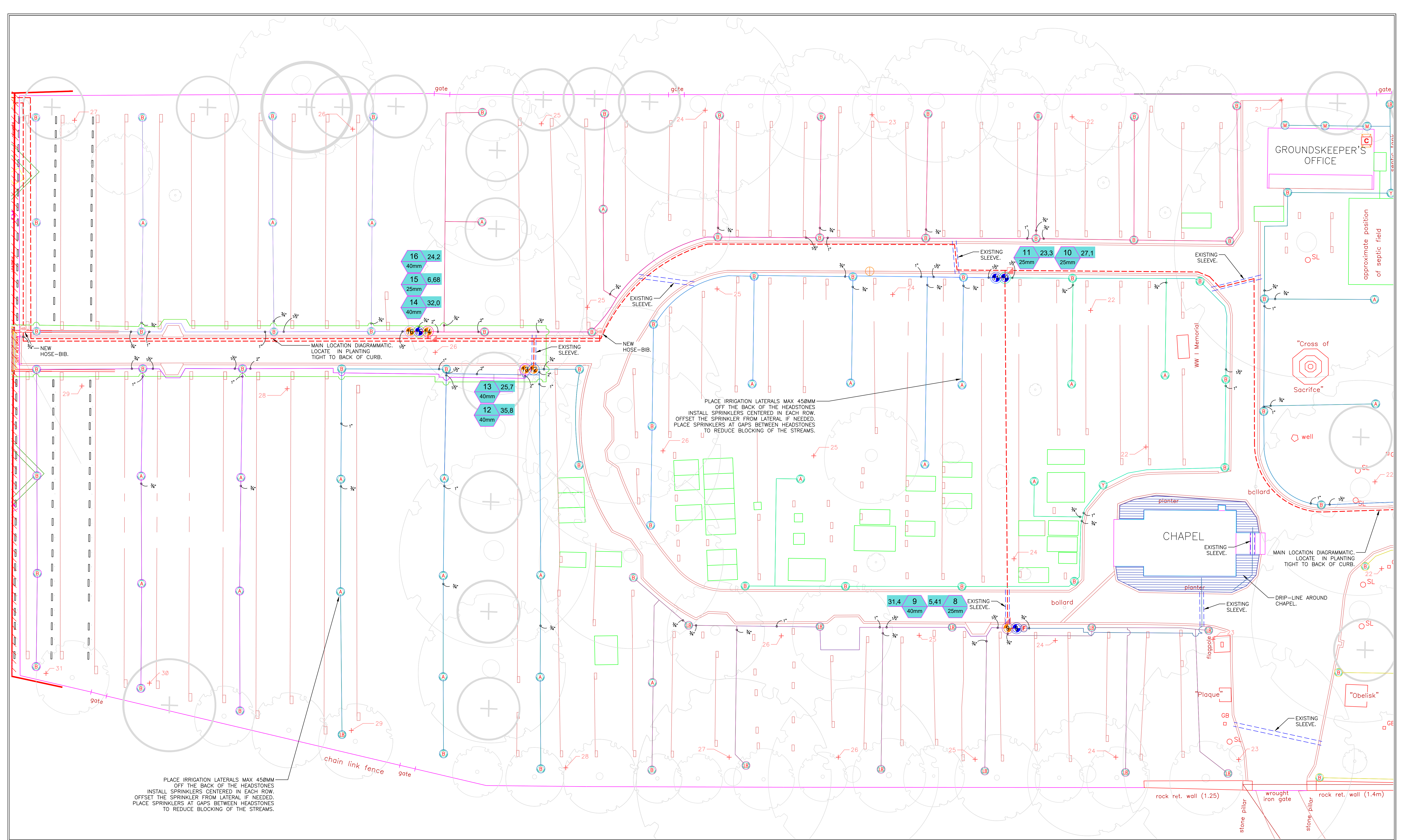


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PROJECT NAME  
**GOD'S ACRE VETERANS CEMETERY ESQUIMALT, BC**

CONTRACTOR  
 LOGO  
 ADDRESS



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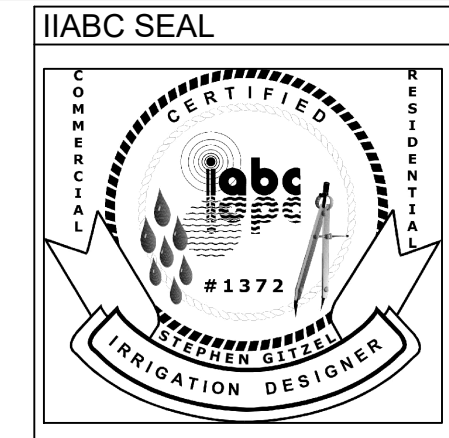
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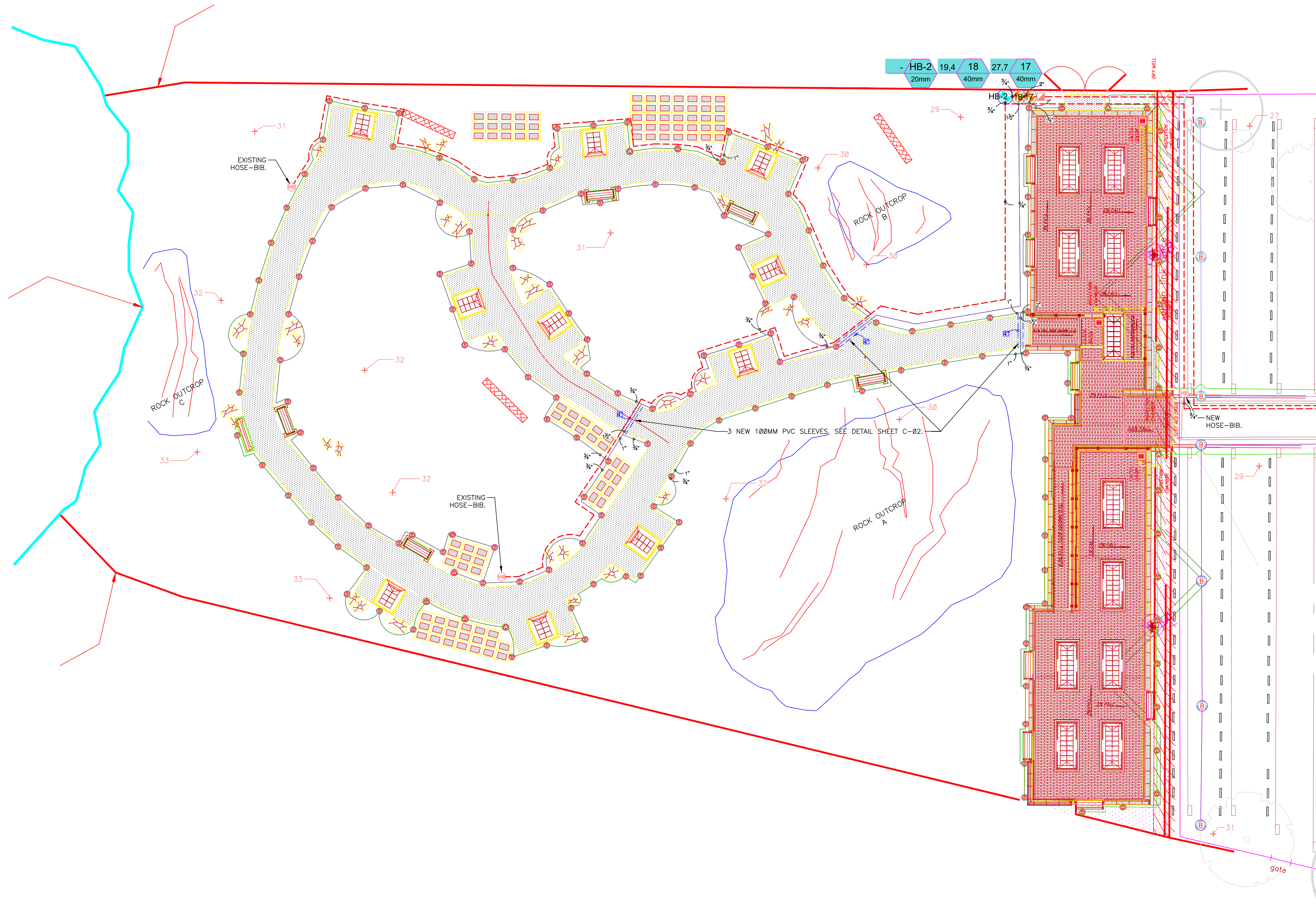
**PROJECT NAME**

GOD'S ACRE VETERANS CEMETERY ESQUIMALT, BC

**CONTRACTOR**

LOGO

ADDRESS



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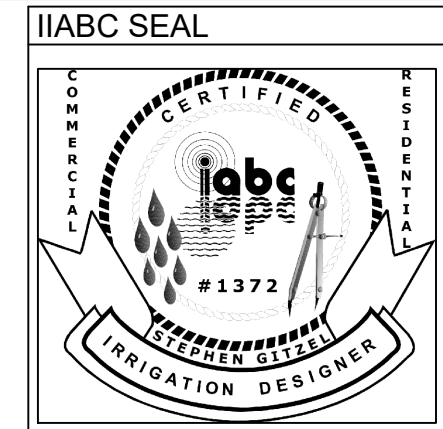
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**PROJECT NAME**

GOD'S ACRE  
 VETERANS  
 CEMETERY  
 ESQUIMALT, BC

**CONTRACTOR**

LOGO

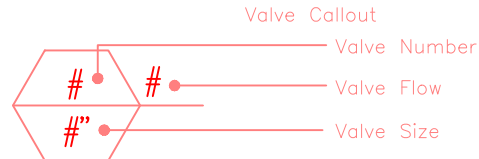
ADDRESS

IRRIGATION SCHEDULE CURRENTLY IRRIGATED AREA

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 4X STRIP SPRAY	16	55T	30	0.4	1,2x5.5
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 4X STRIP SPRAY	2	LCS	30	0.2	1,2x2.7
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 4X STRIP SPRAY	2	RCS	30	0.2	1,2x2.7
	(TURF) MP1000 C/M IRRITROL IP600-CV	9	90-210	35		4.0 m
	(TURF) MP3000 C/M IRRITROL IP600-CV	52	360	35	3.4	8.5 m
	(TURF) MP3000 C/M IRRITROL IP600-CV	116	90-210	35		8.5 m
	(TURF) MP3000 C/M IRRITROL IP600-CV	2	210-270	35		8.5 m
	(TURF) MP3500 C/M IRRITROL IP600-CV	13	90-210	35		10.4 m

SYMBOL	MANUFACTURER/MODEL	QTY
	AREA TO RECEIVE DRIPLINE TORO R6P-412 DL2000 COMMERCIAL DRIP-LINE	100 m

SYMBOL	MANUFACTURER/MODEL	QTY
	IRRITROL 700 20MM	1
	RAIN BIRD P6A GLOBE 40MM	9
	RAIN BIRD P6A GLOBE 25MM	7
	RAIN BIRD 3-RC 20MM	8
	HOSE-BIB / NEW 4X4 ALUMINUM POST	3
	WATTS 00T 40MM	1
	HUNTER PFG-24001	1
	NETAFIM DF100-080 25MM	1
	50MM POC @ 74PSI	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 3/4"	1550 m
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 1"	230 m
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 1/2"	300 m
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 2"	40 m
	IRRIGATION MAINLINE: PVC SCHEDULE 40 3/4"	120 m
	IRRIGATION MAINLINE: PVC SCHEDULE 40 2"	360 m
	PIPE SLEEVE: PVC SCHEDULE 40 - SIZE AS MARKED	40 m



VALVE SCHEDULE CURRENTLY IRRIGATED AREA

NUMBER	MODEL	SIZE	TYPE	GPM
1	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	35.18
2	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	27.42
3	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	32.53
4	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	35.81
5	RAIN BIRD P6A GLOBE	25mm	TURF ROTARY	21.71
6	RAIN BIRD P6A GLOBE	25mm	TURF ROTARY	26.15
7	RAIN BIRD P6A GLOBE	25mm	TURF ROTARY	19.02
8	RAIN BIRD P6A GLOBE	25mm	AREA FOR DRIPLINE	5.41
9	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	31.44
10	RAIN BIRD P6A GLOBE	25mm	TURF ROTARY	27.07
11	RAIN BIRD P6A GLOBE	25mm	TURF ROTARY	23.25
12	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	35.82
13	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	25.65
14	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	32.04
15	RAIN BIRD P6A GLOBE	25mm	SHRUB SPRAY	6.68
16	RAIN BIRD P6A GLOBE	40mm	TURF ROTARY	24.2
HB-1	IRRITROL 700	20mm	HOSE-BIB ZONE	

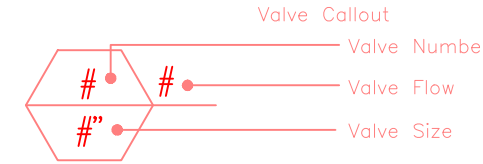
CRITICAL ANALYSIS CURRENTLY IRRIGATED AREA

Generated:	2021-03-30 14:31
P.O.C. NUMBER:	01
Water Source Information:	50MM POC @ 74PSI
FLOW AVAILABLE	
Custom Max Flow:	50 GPM
Flow Available:	50 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	74 PSI
Pressure Available:	74 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	35.82 GPM
Flow Available at POC:	50 GPM
Residual Flow Available:	14.18 GPM
Critical Station:	12
Design Pressure:	35 PSI
Friction Loss:	1.54 PSI
Fittings Loss:	0.16 PSI
Elevation Loss:	5.68 PSI
Loss through Valve:	2.66 PSI
Pressure Req. at Critical Station:	45.03 PSI
Loss for Fittings:	0.71 PSI
Loss for Main Line:	7.09 PSI
Loss for POC to Valve Elevation:	12.08 PSI
Loss for Backflow:	4.5 PSI
Critical Station Pressure at POC:	69.41 PSI
Pressure Available:	74 PSI
Residual Pressure Available:	4.59 PSI

IRRIGATION SCHEDULE RECENTLY DEVELOPED AREA

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 8 SERIES	1	60	30	0.1	2.4 m
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 8 SERIES	2	150	30	0.3	2.4 m
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 8 SERIES	4	210	30	0.4	2.4 m
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 8 SERIES	91	180	30	0.3	2.4 m
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 8 SERIES	21	90	30	0.2	2.4 m
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 8 SERIES	9	120	30	0.2	2.4 m
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 8 SERIES	15	270	30	0.5	2.4 m
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 4X STRIP SPRAY	3	55T	30	0.4	1,2x5.5
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 4X STRIP SPRAY	2	LCS	30	0.2	1,2x2.7
	(SHRUB) IP600-CV C/M PRECISION NOZZLE 4X STRIP SPRAY	3	RCS	30	0.2	1,2x2.7

SYMBOL	MANUFACTURER/MODEL	QTY
	IRRITROL 700 20MM	1
	RAIN BIRD P6A GLOBE 40MM	2
	RAIN BIRD 3-RC 20MM	1
	HOSE-BIB / EXISTING 4X4 POST	2
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 3/4"	315 m
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 1"	60 m
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 1/2"	50 m
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21 2"	18 m
	IRRIGATION MAINLINE: PVC SCHEDULE 40 3/4"	140 m
	IRRIGATION MAINLINE: PVC SCHEDULE 40 2"	12 m
	PIPE SLEEVE: PVC SCHEDULE 40 - SIZE AS MARKED 4"	7 m



VALVE SCHEDULE RECENTLY DEVELOPED AREA

NUMBER	MODEL	SIZE	TYPE	GPM
17	RAIN BIRD P6A GLOBE	40mm	SHRUB SPRAY	27.65
18	RAIN BIRD P6A GLOBE	40mm	SHRUB SPRAY	19.43
HB-2	IRRITROL 700	20mm	HOSE-BIB ZONE	

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
	IRRIGATION CONTRACTOR TO PROVIDE MANUALS OF INSTRUCTIONS CONTAINING OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL COMPONENTS OF THE SYSTEM.
	RECORD DRAWINGS: UPON COMPLETION, THE CONTRACTOR MUST SUBMIT 2 PRINTS OF DIGITALLY DRAWN AS-BUILT DRAWINGS. THE PRINTS WILL INDICATE THE LOCATION OF CONNECTION POINTS, BACKFLOW PREVENTERS, SLEEVES, MAIN LINES, LATERAL LINES, EMITTER LINES, VALVES, CONTROLLERS, AND ANY OTHER COMPONENT INSTALLED. DIMENSIONALLY LOCATE PRESSURIZED COMPONENTS AND PRESSURIZED LINES FROM BUILDINGS, CURB LINES OR OTHER FIXED SITE FEATURES. MAIN LINES, INDIVIDUAL ZONES, AND ASSOCIATED COMPONENTS TO BE DRAWN ON SEPARATE LAYERS. COPY OF BACKFLOW TEST TO BE INCLUDED.
	VALVES SHALL BE RAIN BIRD P6A SERIES OR APPROVED EQUAL. VALVES FOR HOSE-BIB ZONES TO BE IRRITROL 700 SERIES OR APPROVED EQUAL.
	CONTROLLER TO BE HUNTER PRO-HC 24 STATION SERIES OR APPROVED EQUAL.
	ALL CONTROL WIRE WILL BE SINGLE STRAND COPPER WIRE, T9U-40, #14 GAUGE AND THE COMMON WIRE SINGLE STRAND, COPPER WIRE, T9U-10, #12 GAUGE.
	ALL SPRINKLERS IN TURF AREAS SHALL BE IRRITROL IP600-CV AND IP600-CV IN PLANTING AREAS SERIES OR APPROVED EQUAL. ALL TURF SPRINKLERS SHALL USE MP ROTATOR SERIES NOZZLES. ALL PLANTING AREAS SHALL USE TORO PRECISION NOZZLES. NO SUBSTITUTIONS. PLACE IRRIGATION LATERALS MAX 450MM OFF THE BACK OF THE HEADSTONES. INSTALL SPRINKLERS CENTERED IN EACH ROW. OFFSET THE SPRINKLER FROM LATERAL IF NEEDED. PLACE SPRINKLERS AT GAPS BETWEEN HEADSTONES TO REDUCE BLOCKING OF THE STREAMS.
	ZONES 12 - 18 HAVE BEEN SIZED TO A MAXIMUM OF 3' PER SECOND TO REDUCE FRICTION LOSS DUE TO THE ELEVATION PRESSURE LOSS. TRY TO REDUCE 90 DEGREE ELBOWS TO LIMIT ANY FURTHER PRESSURE LOSS IN THESE ZONES.
	DRIP SHALL BE TORO DL2000 16PH @ 12" ON CENTER SERIES OR APPROVED EQUAL. ANY DRIP ZONES SHALL HAVE A MINIMUM OF 1 AVR VALVE (AT HIGHEST POINT) AND FLUSH VALVES AT FURTHEST POINT LOCATED IN APPROVED VALVE BOX.
	ANY DRIP ZONES SHALL HAVE A NETAFIM ARKAL DISK FILTER EQUAL TO THE VALVE SIZE SERIES OR APPROVED EQUAL.
	ALL SLEEVES IN THE TURF AREAS ARE EXISTING. LOCATIONS SHOULD BE CONFIRMED BEFORE INSTALLATIONS. ANY EXISTING PIPING WILL NEED TO BE REMOVED FROM THE SLEEVES.
	INSTALLATION INCLUDING, BUT NOT LIMITED TO, VALVE BOXES, WIRE, SINK JOINTS AND MAINLINE SHALL FOLLOW IABC SPECIFICATIONS.
	UNDERTAKE ALL WORK IN A MANNER TO MINIMIZE DISTURBANCE TO ALL SITE FEATURES INCLUDING HEADSTONES, MONUMENTS, HARD SURFACES AND VEGETATION. RESTORE ALL DAMAGED AREAS TO AS-FOUND OR BETTER CONDITION.
	STOP WORK AND NOTIFY VAC STAFF IMMEDIATELY IN CASE OF SUSPECTED ARCHAEOLOGICAL FINDS.

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SCALE		1 : 125		

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IABC SEAL

IA SEAL

PROJECT NAME  
 GOD'S ACRE VETERANS CEMETERY ESQUIMALT, BC

CONTRACTOR  
 LOGO  
 ADDRESS



PROJECT NO. 161-11296-08



PHOTO: POINT OF CONNECTION

INSTALL IRRIGATION LATERALS MAX. 450mm OFF BACK OF HEADSTONES. INSTALL SPRINKLER HEADS CENTRED IN EACH ROW.



PHOTO: TYPICAL IRRIGATION LATERAL

LOCATE AND REMOVE ALL EXISTING VALVES AND JUNCTION BOXES. CUT AND ABANDON EXISTING PIPING AND ELECTRICAL TO MINIMUM 200mm BELOW FINISHED GRADE. BACKFILL AND RESTORE ALL DISTURBED AREAS WITH TOPSOIL AND GRASS SEED. (TYP.)

LOCATE AND REMOVE ALL EXISTING SPRINKLER HEADS TO MINIMUM 200mm BELOW FINISHED GRADE. BACKFILL AND RESTORE ALL DISTURBED AREAS WITH TOPSOIL AND GRASS SEED. (TYP.)

REPLACE EXISTING 19mm REDUCED-PRESSURE BACKFLOW PREVENTER (WATTS 009) WITH DOUBLE CHECK VALVE (WATTS 007 OR EQUAL). PROVIDE SHOP DRAWINGS.

REMOVE PVC FITTINGS AND INSTALL BACKFLOW PREVENTER

EXISTING VALVE TO REMAIN

LOCATE AND RE-USE EXISTING SLEEVE (TYP.)

EXISTING ASPHALT ROAD AND CURB

NEW ALUMINUM 4x4 POST AND HOSE BIB TO WATER MAIN.

WHERE NEW IRRIGATION SYSTEM CROSSES OR EXPOSES EXISTING IRRIGATION CUT AND ABANDON EXISTING SYSTEM IN PLACE. (TYP.)

POINT OF CONNECTION TO MUNICIPAL SERVICE REMOVE EXISTING 50mm PVC FITTINGS. INSTALL 40mm BACKFLOW PREVENTER IN EXISTING CHAMBER PER IRRIGATION DRAWINGS.

EAST SIDE PLAN  
1:250



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4		
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1	Re-issued For Review	2021/04/09
0	Design Completion	
Revision/	Description/Description	Date/Date

Client/client

VETERANS AFFAIRS CANADA

PO Box 7700, CHARLOTTETOWN, PE C1A 8M9

Project title/Titre du projet  
1190 COLVILLE RD  
ESQUIMALT, BC

ESQUIMALT VETERANS CEMETERY IRRIGATION SYSTEM STUDY

Consultant Signature Only

Designed by/Concept par  
J. SOMERVILLE

Drawn by/Dessiné par  
S. GAGNON

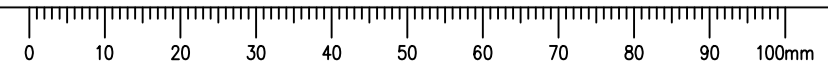
PWGSC Project Manager/Administrateur de Projets TPSGC  
PHILIP TAM

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Gestionnaire régional, Services d'architectural et de génie, TPSGC  
DARYL SINCLAIR

Drawing title/Titre du dessin

IRRIGATION AND SURFACE WORK  
EAST SIDE

Project No./No. du projet R.113451.001	Sheet/Feuille C-101 1 OF 2	Revision no./La Révision no. 1
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ESQUIMALT, BC

**ESQUIMALT VETERANS CEMETERY IRRIGATION SYSTEM STUDY**

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J. SOMERVILLE

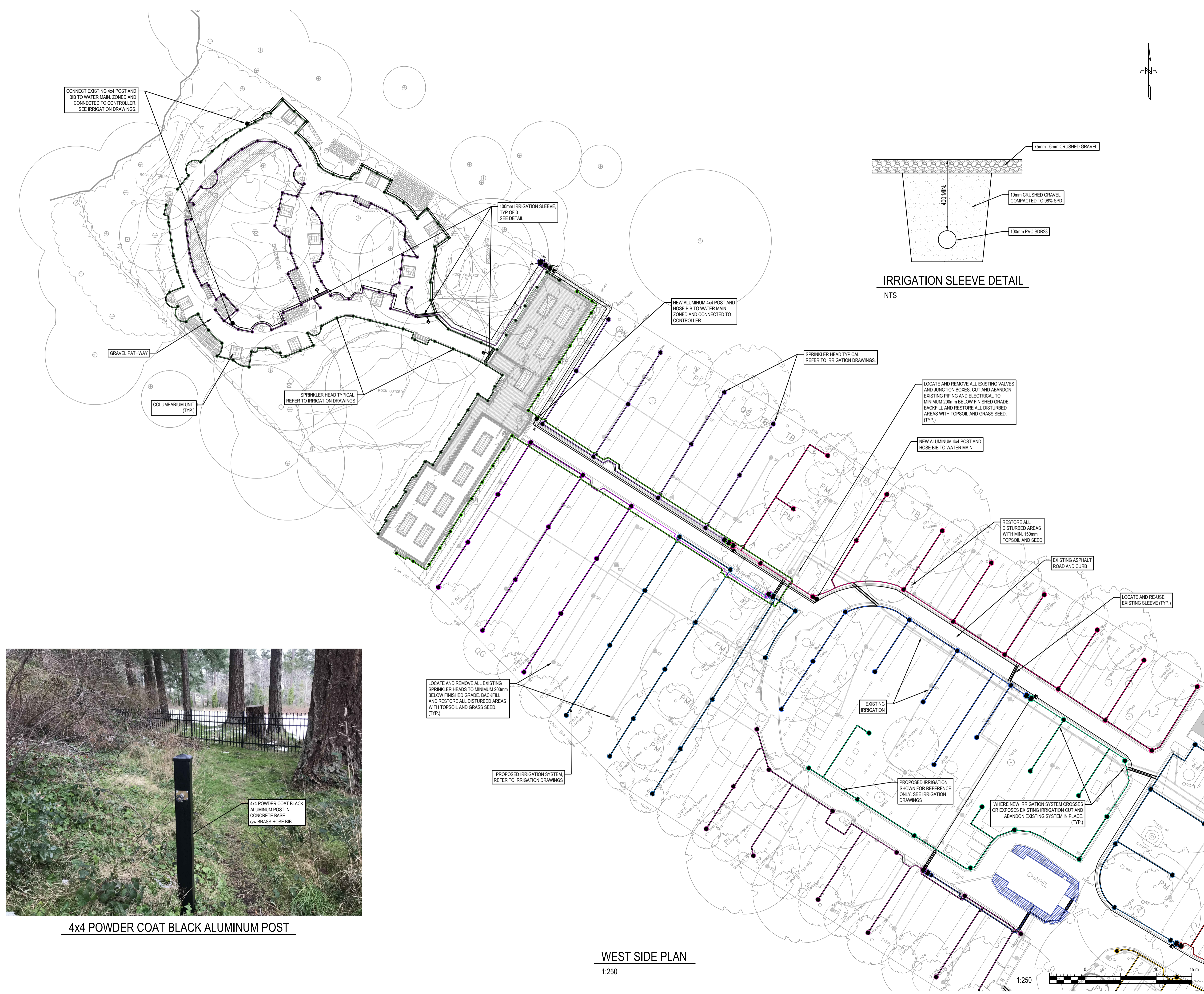
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Gestionnaire régionale, Services d'architectural et de génie, TPSGC  
DARYL SINCLAIR

Drawing title/Titre du dessin  
**IRRIGATION AND SURFACE WORK WEST SIDE**

Project No./No. du projet <b>R.113451.001</b>	Sheet/Feuille <b>C-102</b> 2 OF 2	Revision no./La Révision no. <b>1</b>
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4x4 POWDER COAT BLACK ALUMINUM POST