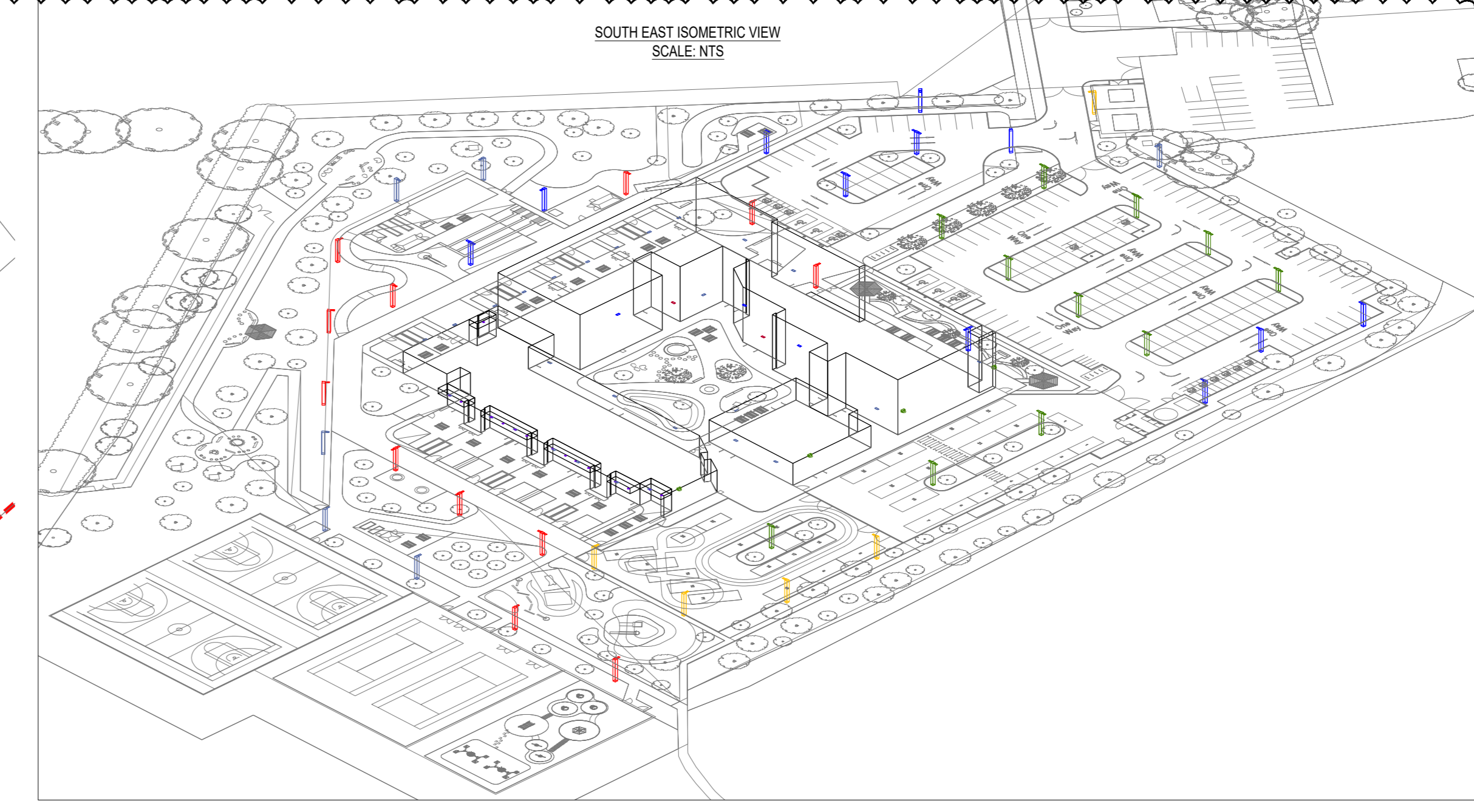
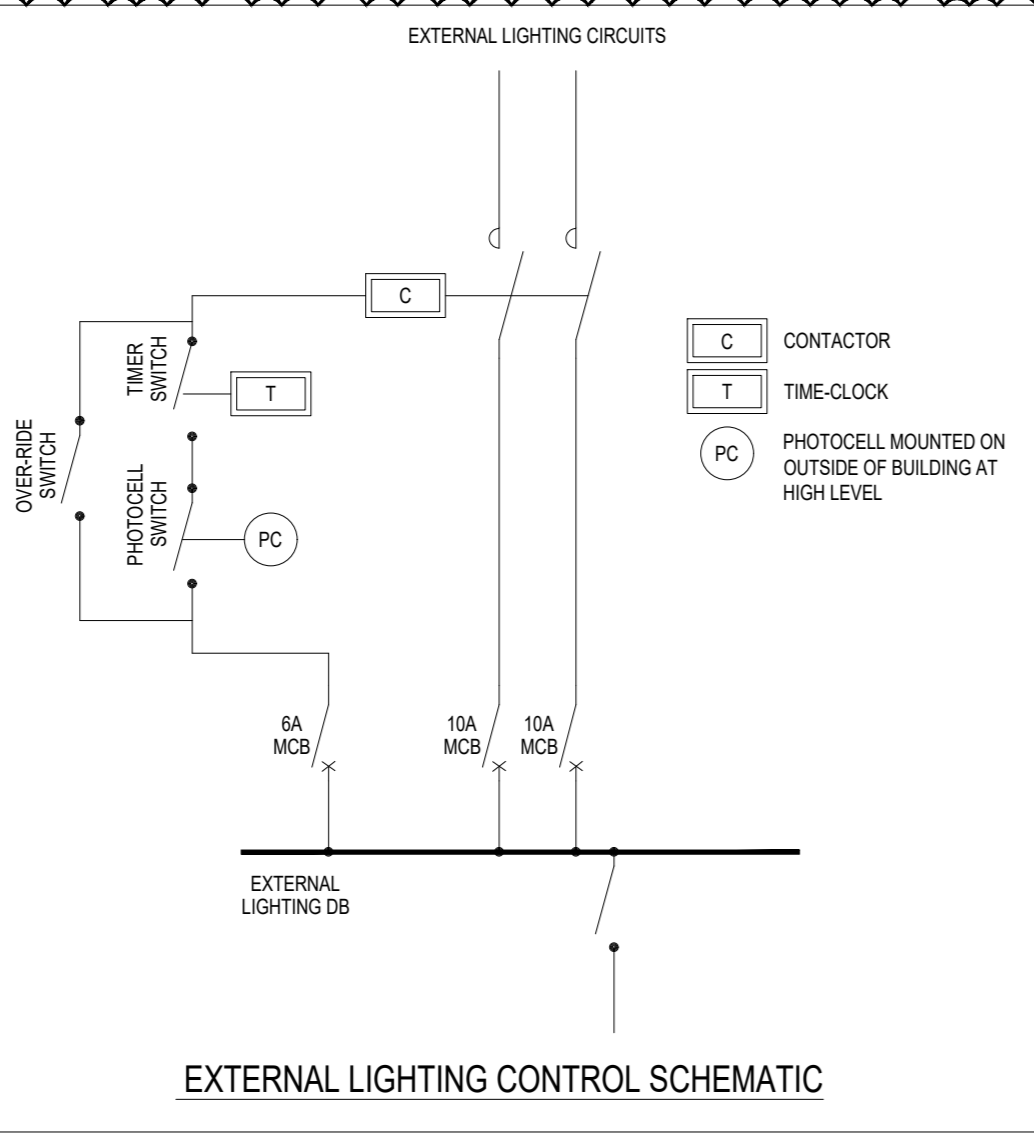


SCHEDULE	SYMBOL	LABEL	QTY	MANUFACTURER	CATALOG	DESCRIPTION	HEIGHT	POWER
A2	[Symbol]	A2	11	HOLOPHANE EUROPE LIMITED	2 x DPL 1 LA022 AY W020 on 4m Column	Denver D Post Top Filing	60	
B1	[Symbol]	B1	5	HOLOPHANE EUROPE LIMITED	1 x DPL 1 LA022 FW W024 on 4m Column	Denver D Post Top Filing	24	
C1	[Symbol]	C1	7	HOLOPHANE EUROPE LIMITED	1 x DPL 1 LA022 AY W024 on 4m Column	Denver D Post Top Filing	24	
C2	[Symbol]	C2	4	HOLOPHANE EUROPE LIMITED	2 x DPL 1 LA022 AY W024 on 4m Column	Denver D Post Top Filing	48	
D1	[Symbol]	D1	6	HOLOPHANE EUROPE LIMITED	1 x DPL 1 LA022 FW W015 on 4m Column	Denver D Post Top Filing	15	
E1	[Symbol]	E1	9	HOLOPHANE EUROPE LIMITED	1 x DPL 1 LA022 NR W015 on 4m Column	Denver D Post Top Filing	15	
E2	[Symbol]	E2	3	HOLOPHANE EUROPE LIMITED	2 x DPL 1 LA022 NR W015 on 4m Column	Denver D Post Top Filing	30	
F	[Symbol]	F	4	HOLOPHANE EUROPE LIMITED	DWL 1 LA022 FW W018 at 4m AFFL	Denver D Wall	18	
G	[Symbol]	G	3	HOLOPHANE EUROPE LIMITED	DWL 1 LA022 FW W011 at 7m AFFL	Denver D Wall	10.3	
H	[Symbol]	H	2	HOLOPHANE EUROPE LIMITED	DWL 1 LA012 HN W007 at 3m AFFL	Denver D Wall	6.5	
I	[Symbol]	I	27	HOLOPHANE EUROPE LIMITED	DWL 1 LA012 FW W007 at Height Show AFFL	Denver D Wall	6.5	
K	[Symbol]	K	15	HOLOPHANE EUROPE LIMITED	P8HD 500S 843098	MICRO Dlight LED (5.9W - 2700K) Wide 220-240V 1500lm	5.9	

DESCRIPTION	SYMBOL	AVG	MIN	MINAVG
INNER COURTYARDS - 50.25m	[Symbol]	5 lux	2 lux	0.40
MAIN CAR PARK 100.25m	[Symbol]	15 lux	4 lux	0.27
OUTDOOR TEACHING AREAS (NW)	[Symbol]	9 lux	4 lux	0.50
OUTDOOR TEACHING AREAS ALL (SW)	[Symbol]	9 lux	4 lux	0.44
OUTDOOR TEACHING AREAS UNDER CANOPY ALL (SW)	[Symbol]	51 lux	20 lux	0.39
OVERFLOW ACCESS CAR PARK 100.25m	[Symbol]	14 lux	4 lux	0.29
PATHWAYS SLUX 0.25m	[Symbol]	9 lux	3 lux	0.33
SPILL	[Symbol]	0 lux	0 lux	N/A
STORAGE SLUX 0.25m	[Symbol]	9 lux	3 lux	0.33



NOTES:

- THIS DRAWING TO BE READ IN CONJUNCTION WITH THE MAIN SPECIFICATION AND ALL LATEST ARCHITECTS AND ENGINEERS DRAWINGS.
- ALL EXTERNAL LIGHTING IS DESIGNED AND INSTALLED IN ACCORDANCE WITH:
 - IEC TECHNICAL ANNEX ZE
 - CIE LIGHTING GUIDE
 - BS EN 12464-2
 - BS EN 12001
 - BS 5489
 - BS 5300
 - IFC 001: 2011
- ALL EXTERNAL LIGHTING IS TO BE CONTROLLED BY A PHOTOCELL AND TIME SWITCH ARRANGEMENT WITH A MANUAL OVERRIDE SWITCH.
- THE EXTERNAL LIGHTING TIME CLOCK IS SET SO THAT ALL EXTERNAL LIGHTING IS TO BE OFF BETWEEN 2300HRS AND 0700HRS.
- ALL LIGHTING COLUMNS TO BE SITED TO SUIT LOCATION FROM TREES LANDSCAPE AND EXTERNAL FURNITURE.
- WHERE EXTERNAL LUMINAIRE POSITIONS SHOWN ON THIS DRAWING ARE INDICATIVE ONLY SHOWING DESIGN INTENT.
- THE NORMAL PEDESTRIAN ESCAPE ROUTES SHALL BE PROVIDED WITH EMERGENCY LIGHTING TO THE SAME STANDARD AS ESCAPE ROUTES WITHIN NON-RESIDENTIAL PUBLIC PREMISES IN ACCORDANCE WITH BS2686-1.
- ABOVE ALL FINAL EXITS, SUITABLY RATED WALL MOUNTED LUMINAIRE COMBINED WITH HOUR EMERGENCY PACK.
- DESIGNATED PARKING SPACES AND ANY ACCESS FROM SUCH SPACES TO THE BUILDING ENTRANCE SHALL BE LIT ARTIFICIALLY TO ACHIEVE A MINIMUM ILLUMINANCE OF 10 LUX, BUT WITH A LUMINANCE OF 100 LUX IN RAMPERS OR STEPS.
- THE LIGHTING IS TO BE DESIGNATED AS AN INTEGRAL ELEMENT OF THE DEVELOPMENT.
- ALL EXTERNAL LIGHTING SHALL UTILISE LOW ENERGY FITTINGS WHERE PRACTICALLY POSSIBLE.
- THE ALIGNMENT OF LAMPS AND PROVISION OF SHIELD SHALL BE POSITIONED IN A MANNER TO MINIMISE SPILLAGE AND GLOW INCLUDING INTO THE NIGHT SKY.
- THE LIGHTING IS DESIGNED THAT NO SIGNIFICANT LOSS OF PRIVACY OR ANNOYANCE TO NEARBY RESIDENTIAL PROPERTIES AND IN A MANNER THAT WILL CAUSE NO DANGER TO PEDESTRIANS AND ROAD USERS.
- THE EXTERNAL LIGHTING TO BE INSTALLED IN A MANNER TO MINIMISE HARM TO NATURAL ECOSYSTEMS.
- THE EXTERNAL LIGHTING IS DESIGNED WITH TABLES 1 & 2 OF THE ILLUMINANCE GUIDE FOR THE REDUCTION OF OBTRUSIVE LIGHT 2011 (SNI 2011).

DARK SKY CRITERIA:

- COMPLIANCE WITH LOCAL AUTHORITY DARK SKY CRITERIA IS TO BE ACHIEVED USING PRECISE LIGHT CONTROL FROM LUMINAIRE HEADOPTIC.
- LUMINAIRES INSTALLED SHALL HAVE NO UPWARD LIGHT COMPONENT. THE LOCAL AUTHORITY'S DARK SKY POLICY SHALL BE CONSULTED PRIOR TO INSTALLATION OF EXTERNAL LIGHTING.
- CONTROL OF EXTERNAL LIGHTING SHALL BE VIA TIME BLOCK AND PHOTOCELLS. A MANUAL OVERRIDE FACILITY SHALL ALSO BE PROVIDED.
- THE FOLLOWING DESIGN PRINCIPLES SHALL BE FOLLOWED:
 - LIGHT WHAT IS NECESSARY ONLY
 - LIGHT THE AREAS WE NEED TO ONLY
 - LIGHT ONLY WHEN IT IS NECESSARY
 - EXTERNAL LIGHTS AND THEIR LIGHT DISTRIBUTION SHALL BE POSITIONED SO AS TO AVOID LIGHT SPILL NOT THE SKY INTO THE SKY AND ONTO NEIGHBOURING PROPERTIES.

COLOR RENDERING INDEX (Ra)

- AT NIGHT TIME THE SENSITIVITY OF THE EYE IS SHIFTED TOWARDS THE BLUE REGION OF THE VISUAL SPECTRUM AS A RESULT LAMPS WITH POOR COLOR RENDERING INDEX SUCH AS SOME SODIUM LAMPS THAT EMIT LIGHT BETWEEN THE YELLOW AND RED REGION OF THE VISUAL SPECTRUM REQUIRE MORE LUMINOUS TO LIGHT AN OBJECT WITH THE SAME LEVEL OF BRIGHTNESS THAN A SOURCE WITH BETTER COLOR RENDERING INDEX.
- SOURCES WITH A POOR COLOR RENDERING INDEX ALSO MAKE THE DIFFERENTIATION OF COLOURED OBJECTS MORE DIFFICULT FOR INDIVIDUALS.
- IN BS 5489-1:2003 CODE OF PRACTICE FOR THE DESIGN OF ROAD LIGHTING - PART 1 LIGHTING OF ROADS AND PUBLIC MENTHITY AREAS, THIS IS ACKNOWLEDGED BY ALLOWING A REDUCTION IN THE LIGHTING LEVELS (ILLUMINANCE LEVELS) REQUIRED WHEN THE SOURCE SPECIFIED AS A COLOR RENDERING INDEX Ra GREATER THAN OR EQUAL TO 60.
- THE COLOR RENDERING INDEX REQUIREMENTS MEANS COMPLIANCE WITH THIS ISSUE USING SOURCES OF LIGHT WITH A POOR COLOR RENDERING INDEX IS HARSHER TO ACHIEVE THAN THOSE WITH AN INDEX GREATER THAN OR EQUAL TO 60. OTHER BENEFITS OF USING SOURCES WITH AN INDEX GREATER THAN 60 INCLUDE AN INCREASED FEELING OF SAFETY FOR INDIVIDUALS MAKING RECOGNITION OF SPACES AND OTHER INDIVIDUALS EASIER.
- IN AREAS WHERE CCTV IS USED, THE COLOR RENDERING INDEX OF LIGHTING SOURCES IS CRITICAL - AN Ra VALUE OF AT LEAST 80 IS RECOMMENDED.

PROJ STAGE 4 (PCSA) SITE PLAN UPDATED: LIGHTING DESIGN REVISED: 18.03.20
PROJ CIRCULAR REFERENCED: 27.01.20
PROJ FOR COMMENT & APPROVAL: 13.01.20
REV FOR COMMENT & APPROVAL: 13.01.20
REV COMMENTS: DATE

CONTRACT
NEW WOOLLEY SCHOOL & COLLEGE HUDDERSFIELD

TITLE
EXTERNAL LIGHTING SHEET 1 OF 2

Scale: @ A0
 1:200
 Status Code: S3
 Revision Code: P03

GH# No: 1424
 Modelled By: KM
 Checked By: BW

Status Code: S3
 Suitable for Review & Comment

Revision Code: P03
 Preliminary

Drawing Name: Project
 Originator: NWSC - GAH - 00 - 00 - D - E - 01101
 Volume: Level: Type: Role: Number

ARCHITECTURE IS BASED ON DLA ARCHITECTS DRAWING No. NWSC-04-01-00-04-20100 REV P04 GENERAL ARRANGEMENT PLAN, GROUND FLOOR
 THE SITE PLAN IS BASED ON ONE ENVIRONMENT'S DRAWING No. NWSC-01-22-ZZ-D-L-00002 REV P04 PROPOSED LANDSCAPE PLAN

FOR CONTINUATION SEE DRAWING No. NWSC-GAH-00-00-D-E-01102

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