

PEEBLES HIGH SCHOOL PARENT COUNCIL



PHS Buildings Sub-Group

Visits to New Secondary Schools in Scotland – February 2023

Executive summary

4 High Schools were visited, from 4 different local authority areas, all had been completed in the past 9 years. Varying approaches had been taken to making teaching areas open plan to a greater or lesser degree, to making learning visible, and to the management of those spaces.

All the staff asked (both teaching and management) indicated that teaching spaces should have walls and doors, and that some flexibility to use break-out spaces and adjacent areas was sometimes useful (except the DHT at Jedburgh who was happy with the open plan). The open plan teaching spaces at West Calder and Jedburgh were in use due to no enclosed spaces being available. At Lasswade some open plan spaces had been enclosed or partially enclosed to make them more useable, and at Bertha Park the school roll did not require them to be used yet, and so they were not.

All the schools had a double height assembly hall/performance space with lighting and at least some drama facilities (curtains, moveable stages). Part of the total hall space could be partitioned off to use as teaching space (drama/sports) in all cases. Those schools with non-enclosed halls indicated they would prefer them to be enclosed.

Each building had similarities with a large warehouse/shopping centre in terms of construction style, services “on show” within the building, multi-storey atria, high ceilings and large volumes, and acoustic treatments had been required in all cases to manage the background noise, although none of the buildings felt quiet when in use, Bertha Park was the most acoustically pleasant building to spend a full day inside.

All schools had unisex toilets with wash hand basins outside the cubicles, and a design that made the non-private areas of the facilities visible. West Calder HS had the most successful design and reported no problems with behavior related to these areas.

Social and dining spaces all appeared small in relation to the full roll of the school, and at Lasswade and West Calder, schools at or close to full capacity, multiple sittings for lunch were essential, with negative consequences for lunchtime activities.

Based on best practice at the schools observed, we recommend that:

- All teaching spaces should have 4 walls and a door, and that some should have flexible walls/doors to facilitate break-out activities and more active learning.

- Acoustic standards must not only be met, but exceeded where possible, given the impact background noise has on the ability to concentrate and learn.
- PHS should be designed with a double height hall & performance space, fully enclosed and adequately soundproofed, for multi-use (Hall, Performance, Exams, Meetings, Rehearsals, School Lets etc.,)
- Staff should have adequate space for personal belongings away from classrooms, space to work during non-contact time, and private spaces that can be used for confidential calls and conversations.
- The impacts of the design on equality of access to mainstream learning for pupils with any additional needs, MUST be understood and the design adjusted to ensure all pupils able to access mainstream education are not hampered by the building design, nor do they require special management interventions.
- Toilet area design must not provide areas for children to congregate or cause trouble (as currently happens at PHS), and must not allow the escape of sound (e.g. from hand-dryers)
- Lockers should be available for all students that may need them, including secure storage for bulky items (e.g. hockey sticks, musical Instruments).
- Creative ideas should be sought from pupils and staff, and implemented – for example the Green Walls for “Green screen” videography, or the Recording studio at Bertha Park.

Introduction

Members of the PHS Parent Council Building Sub-Group undertook to visit a few of the other newly built secondary schools in Scotland, some of which were referenced in the design brief documents for the PHS Build. We wanted to understand the design features that were similar to those in the PHS design, and how they worked in practice. We invited Councillors and members of the SBC project team to join us at any or all of the visits, but they were only able to make the Jedburgh visit.

Schools visited (see appendix for photos)

1. Lasswade High School – School roll 1650, opened 9 years ago. Norr Architects

- All classrooms (with the exception of two) have solid walls and doors with a long window next to the door for light.
- Had initially included a few open area seating zones, or break out areas next to classrooms. In two cases, these walls were blocked up 1 year after opening.
- In two other areas, semi walls were erected post-occupancy (full walls not possible due to ventilation system design constraints) to block out a portion of the sound.
- On one other area, an open plan classroom was no longer in use as a timetabled classroom. It was abandoned and wasted space.
- A number of smaller rooms that had initially been allocated for departmental storage had been taken over for small meeting rooms – the open areas deemed not suitable for private discussion. Therefore departmental storage had been moved into the staff bases (multiple bases throughout the school) which were very full of filing

cabinets and shelving.

- We understood that in general each teacher had their own classroom – with allowance for job share / part time.
- Assembly Hall was double-height, enclosed, and backed onto two drama classrooms with folding walls for flexible use. The hall had pull-out tiered seating, which when combined with loose chairs, was enough for one year group (approx. 350)
- The Assembly Hall was noted as the only place all staff could meet at once, for an in-service day for example.
- Central dinner hall, open plan and right in the heart of the school. 3 stories high to ceiling. Some 'internal' classrooms and offices on 2nd/3rd floor had windows overlooking this area for light.
- The dinner hall/atrium was used for some break-out type activities outwith break / lunch times. Teachers with rooms two stories above noted they could hear musical rehearsals etc. from their classrooms if their doors were open.
- The central dinner hall was also used by other groups out of school hours – dinner tables could be wheeled away and the space used for exercise classes / primary orchestral groups etc.
- A mixture of some enclosed toilets plus a large number of cubicles with shared wash facilities – open to the corridors. Noted that the noise from hand-dryers was significant and a real issue for teachers with classes nearby.
- Lockers available for all students.

2. West Calder High School – School roll 1100, current roll ~950 opened 2018. Norr Architects

- All classrooms have glass walls to the corridor, and doors. This was a very different look, with full visibility into each classroom. It was noted that students did get distracted when they first moved into the school but the majority have got used to it. Staff were teaching with a mix of doors open or closed, based on personal decision.
- Staff bases also had glass walls onto the corridor – so were completely visibly to all passing. There were mixed feelings about this but staff said they had got used to it.
- There were some 'super classrooms' that could have the wall between them folded back to make a double classroom. These were all closed when we saw them in use, but we understood they were regularly used for larger sessions of combined groups, mainly for out of teaching hours activities (school parliament, visiting speakers etc.).
- There were some open break-out areas that were scheduled for use by classes. Walking around while these classes were taking place, it seemed very distracting for the students and required significant effort for the teachers to raise their voices to be heard in these areas. There was a fair bit of background noise – specifically air circulating/machinery/plant, which seemed to emanate from the

open roof area.

- Assembly Hall was in the centre of the school and open to the corridors, shared areas, and multiple open timetabled teaching spaces. The hall had fixed tiered seating and was a very attractive feature in the centre of the school. However, seats were not comfortable (wooden bench style) and we heard from staff that it could be disruptive if a presentation / talk was taking place and students were passing in the nearby corridors. The depute head indicated that sometimes presentations/assemblies had to pause for people to pass through/around the hall space, but that they had learned to manage this.
- The toilets were all unisex cubicles, with shared washing facilities. These had glass walls / door to separate them from the corridor and keep noise (e.g. from hand-dryers) down. Seemed to work very well – clean, efficient use of space and flexible use.
- A Café space integrated with the assembly hall enabled the space to be used for catered events and the café was used as a teaching space (barista skills) such that some pupils were employed to staff the café for events, providing paid work experience.
- The rectangular building felt quite curvaceous internally, which had a nice feel but results in some wee nooks and crannies. These were designated as small seating areas – but several have now been blocked off by staff as they had become hidey holes for some students trying to keep out of site. Essentially, a wasted space.
- Use of full height artwork appropriate to the subject area (sports, science, etc.) and of some colour on walls, helped make large spaces less overbearing.
- There was extensive booth-seating in break-out areas, and in contrast to Jedburgh, the use of harder-wearing & wipeable materials meant it was remaining in reasonable condition.
- Asked what he would change about the school, the depute head indicated they would like more space (an extension is being discussed).
- Lockers available for all students.

3. Bertha Park High School – Built for 1100 but current school roll 550 (new school, filled from S1 upwards), opened 2019. Norr Architects

- All classrooms have solid walls and doors, with windows down the side for light.
- Given it was the same architects and opened 11 months after West Calder, we felt the change to remove the full glass walls and replace with partially solid walls in the classrooms was of significance.
- Has some open seating areas – but due to only 50% occupancy these are not used for any timetabled classes. The Head Teacher was surprised this could be considered.
- There was a ‘super lab’ with science lab units on one side and standard desks on the

other. It was a double classroom – so two sessions could take place at once. This wasn't really being used in this way yet due to low occupancy.

- Assembly space very similar to West Calder, in the centre of the school and open to the corridors. A lighting/directors box area could be created in the classrooms overlooking the hall.
- In general the school felt much quieter than the other schools visited – not just because it was only 50% occupied but it was the level of background machine / air circulation noise that was noted.
- School day was organised as 4 double periods each day to reduce movement around the school and consequent noise disruption as well as being time-efficient.
- The toilets were all unisex cubicles, with shared washing facilities. These had no wall to separate them from the corridor and keep noise down. But seemed to work very well – clean, efficient use of space and flexible use.
- Lockers available for all students.
- Use of full height artwork appropriate to the subject area (sports, science, etc.) and of some colour on walls, helped make large spaces less overbearing. Purple chosen as a school colour was used extensively.
- Use of wood slats in many of the corridors stairs, and assembly hall, was both an acoustic benefit and
- One room on each floor had a whole wall painted bright green – to be a background screen for special effects / videos. A great idea.
- Enhanced provision had capacity for 24 children in 5 classrooms with a variety of specialist needs. An additional highly equipped toilet (they have 1) was considered to be their main additional requirement.
- A recording/broadcast studio had been incorporated into one of the larger music practice rooms – currently being used for a school radio station and recording of podcasts.
- An intergenerational programme brought older members of the local community in to work with the students on a voluntary basis – “expertise” from this programme included a head of invigilation (ex SQA employee), and an American with a love of Shakespeare who was, in turn, learning Scots from the children.
- When asked what he would change about the school, the Head Teacher indicated he would like the hall to have been enclosed / not open to surrounding balconies/breakout spaces.
- The Head Teacher indicated the school had the highest staff retention figures in the area, which he put down, in part, to the quality of the facilities.

4. Jedburgh High School – Multi-generational campus (3-18), Secondary school for 550 pupils, current roll 370, opened 2020, Stellan Brand Architects. These observations relate to the secondary school provision only.

- The majority of classrooms were open-plan to other classrooms and/or break-out spaces. Small group areas for breakout/tutorial activities were a mix of enclosed and open plan, although many small rooms did not have walls right up to the ceiling for ventilation and other services purposes.
- Staff did not have allocated teaching rooms or an enclosed staff base, but could make use of some meeting/office spaces.
- Plentiful open seating, social, and breakout areas, although these seemed to be generally very little used.
- Small meeting rooms with glass walls and no ceilings were felt inappropriate for confidential meetings, especially if someone involved was upset – frosted glass should have been used, and the rooms enclosed on all sides for soundproofing
- A similar level of background plant/ventilation noise to that at West Calder, in the open spaces. Enclosed classroom and practical spaces were significantly quieter.
- A Loop system was installed at reception and in gym/assembly areas, although it should be noted that this doesn't work for all hearing aid users
- Main concourse has dark grey rubber flooring. This has better acoustic properties than the remainder communal areas with laminated flooring which is a harder material, sound wave reflector, so acoustically poorer.
- The use of “shiny” paint on corridor walls has enabled both easy cleaning and using the walls as a whiteboard, however it was suggested that a non-white colour (e.g. light blue) with the same shiny finish would have been less stark and makes an easier to read background.
- Double height assembly hall space with retractable bleacher seating for about 110. Used as timetabled sports hall. No lighting control position/directors box. No fixed stage. Moveable wall (not soundproof) allowed a larger hall to be created by combining with the drama hall. Both spaces felt like a compromise between very different used.
- Music practice rooms appeared to have very poor soundproofing – drums being played in a practice room with a closed door could be heard throughout the department. Pupils were playing xylophones in the department corridors, apparently due to lack of space for larger instruments in the music rooms.
- 4 members of teaching staff (practical and non-practical subjects) were asked for their views on open plan teaching spaces, all were absolutely categorical that they would wish to have walls and doors for the classrooms.
- Classes were observed being taught in open plan environments with other classes ongoing nearby, teachers were not significantly raising their voices, and pupils sat further from the teachers were struggling to hear.
- Some classroom spaces were describes by 2 teachers as being “like teaching in the corridor”
- A 4-zone science lab was observed and it was difficult for the visitors to hold a conversation due to the level of background noise from the 3 classes in that space.

- Dining hall space was divided between the main entry atrium and a side dining area (behind glass doors) where the primary pupils ate. The secondary school dining furniture was good quality and felt less institutional than the other schools, but although some stools had rubber soles, the loose chairs needed rubber feet to reduce noise. (up to 75dB was measured in this area)
- Generally the soft furnishings looked comfortable and more modern in style than the other schools visited, although some furnishings did show signs of wear, rips and tears, and damage, indicating durability issues.
- Toilets were a row of (gender-neutral) cubicles facing a row of basins (open to the corridor). No sanitary products in view but sanitary bins in each toilet. Paper hand towels were provided in place of air hand dryers, presumably for noise control purposes.
- The balconies appeared to be of minimum height to comply with building regulations and of either glass or metal – with no hand rails whatsoever. Parents expressed safety concerns for anyone losing balance or pushed, although the project manager indicated that in the absence of evidence of accidents/injuries arising from this design, it was unlikely to be changed.
- No lockers for pupils were evident.

Key Findings:

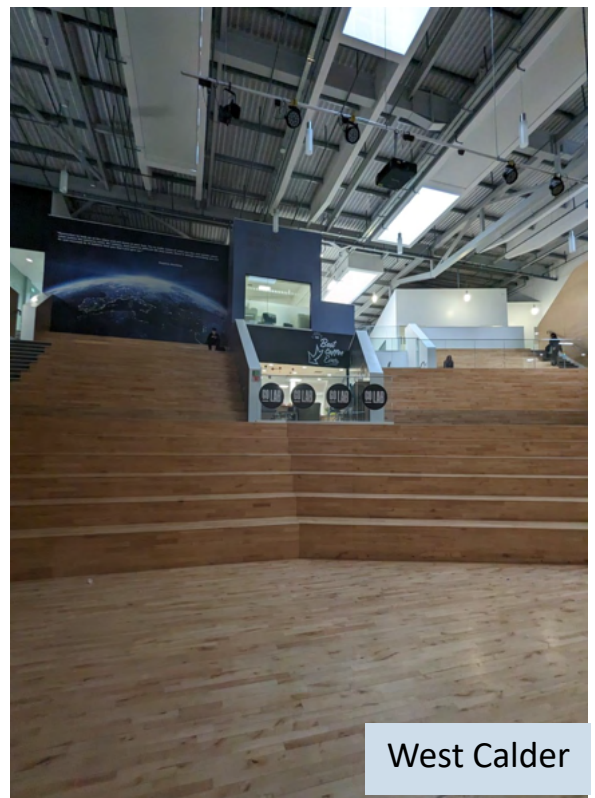
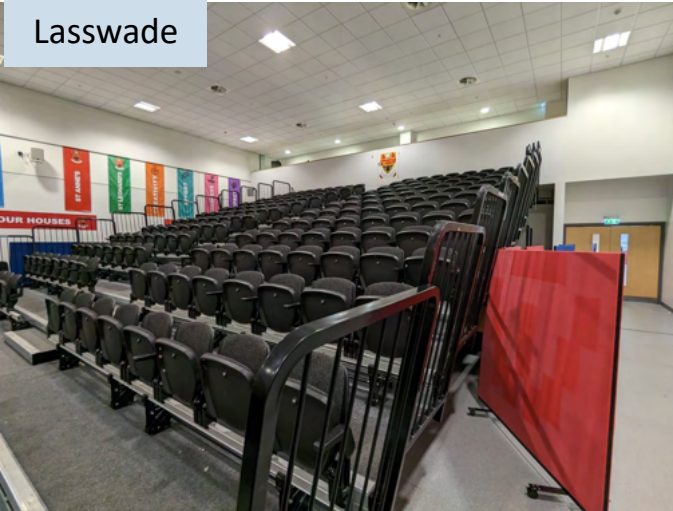
1. Open Plan - All the schools we visited outwith Borders Council had walls and doors on the classrooms. There was a range in the use of glass for both light and visibility into the classrooms, but every Head Teacher / Deputy Head Teacher and staff member we spoke to, except for the Depute Head at Jedburgh, emphasised that it was important the teacher had the choice to close the door.
 - An example given by one teacher was an English Advanced Higher class next door – not an obviously noisy one – that would watch movie clips. Essential to be able to shut the door.
 - A teacher with classroom near the toilets has classes disrupted by the loud hand dryers unless the door was shut.
 - Another example was a teacher with a classroom near the open stairwell – where the sound of children moving between classes was funnelled up to her corridor. She would shut her classroom door but also the double doors to the stairwell to reduce the noise levels.
 - A teacher in a classroom open to an atrium stated that learning and pupil achievement suffered due to the constant noise distraction from the adjacent spaces.
 - A pupil at Jedburgh suggested that curtains should be used to reduce noise from other classes.
2. Staff Bases – all the schools we visited outwith Borders Council had multiple staff bases. Some with glass walls, others with solid walls, all with doors. Where staff storage areas had subsequently been taken over for meeting rooms etc., these bases were congested with storage units despite the fact that each teacher effectively had their own classroom base too. Worth noting the amount of storage needed – despite the digital age.
3. The noise levels where the open plan features funnelled or were next to areas for working, were an issue in all schools. One teacher spoke of her stress levels of being so consistently in conflict with the students seated in the ‘study areas’ located outside her classroom. Her classroom didn’t have a door or proper walls at that stage, and she couldn’t block out the noise but struggled to speak above it. She was off sick with stress at that time, and now has a quieter classroom. She knew of others who had left their jobs due to the conditions.
4. Staff stated that for certain open plan / breakout areas there is an issue with ‘ownership’. Because these were not any one teacher’s classroom, nobody would keep them clean and tidy. So a teacher might turn up to teach a class after lunch (where students had used it as a lunch space) to find desks dirty, rubbish left behind etc. Open areas must therefore be maintained and cleaned, requiring extra janitorial effort/staffing, if they have multi-use through the day.

5. Toilets - All the schools had these unisex open toilet areas with shared wash facilities. These were seen as a good option now we have seen them in use. They seemed a very effective use of space, and would be worth considering at PHS to fit more toilets in certain areas. Note that a glass wall/door is essential to prevent hand dryer noise. Paper hand towels should be considered environmentally unacceptable. Benefit includes efficient use of toilets – rather than each toilet having own sink / mirror which could result in students spending more time than necessary in them. One teacher said a challenge was students using them for private lunches!
6. Materials & Design – Every opportunity should be taken to make use of materials that are acoustically superior (e.g. rubber flooring rather than laminate, or wood slats rather than wood sheet materials), even when not required by BB93 – there is no downside to better-than-minimum levels of acoustic performance, but the negative impacts of poor acoustics were significant.
Harder wearing materials are recommended to reduce maintenance costs and to enable areas to be kept clean. Use of contrasting colours and materials (e.g. as was used to highlight the edge of stairs and handrails at Jedburgh) is to be encouraged. Signage should be in easy to read fonts, and colours that avoid contrast sensitivity.
7. Equality and Discrimination – At Jedburgh, suggestions were made that pupils should try to get a seat nearer the windows than the open sides of the classrooms, if struggling to hear. This acknowledgement of the disadvantage to all pupils created by the barrier to communication was telling, but the suggestion that those with a hearing loss have to fight harder simply to access education is not inclusive and is actively discriminatory.
8. Safety & Accessibility – The risks posed by balcony areas should be mitigated by use of handrails in case of loss of balance, and placement of furniture such that it does not facilitate climbing near the balconies (unlike placing tall stools and tables adjacent to the glass balconies as observed in Jedburgh).
9. Snagging / quality of build –it was evident how much snagging and remedial works had been involved at Lasswade, (also built by BAM). They have had multiple leaks from the roof and pipework and resultant damage. Changing bulbs at a significant height is incredibly difficult and expensive. Recommend getting input from the janitorial staff on general cleaning and maintenance concerns for the new design.

PHS Parent Council
February 2023

PEEBLES HIGH SCHOOL PARENT COUNCIL
PHS Buildings Sub-Group
Visits to New Secondary Schools in Scotland (Appendix)

Assembly / Performance Spaces



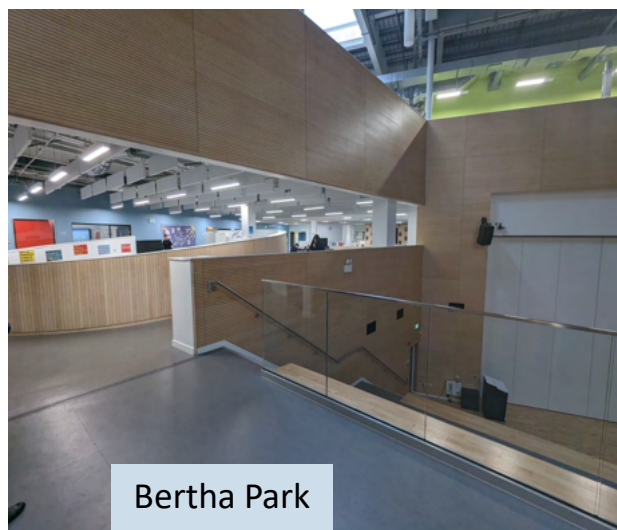
Assembly / Performance Spaces cont.



Bertha Park



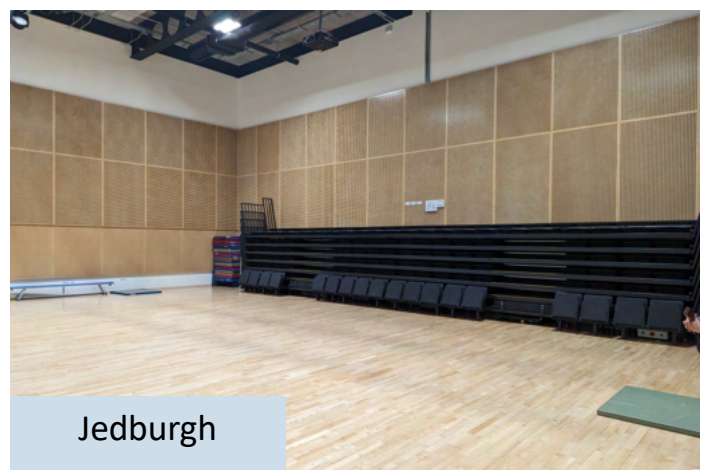
Bertha Park



Bertha Park



Jedburgh



Jedburgh



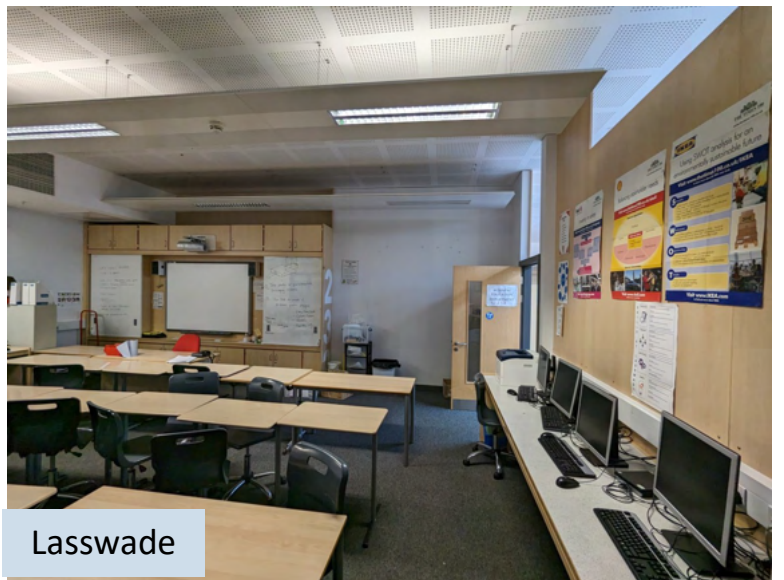
Lasswade

Doors with partial glass wall



Lasswade

Partial additional walls to block noise (air circulation required)

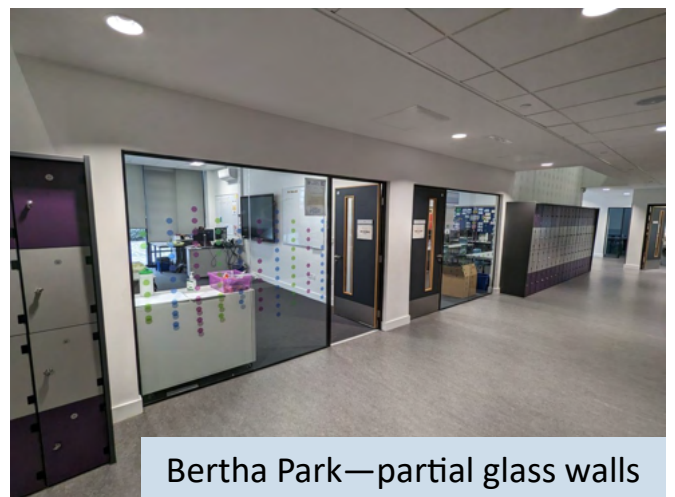


Lasswade

Same classroom from the inside—walls with gaps



West Calder—glass walls



Bertha Park—partial glass walls

Dinner Halls



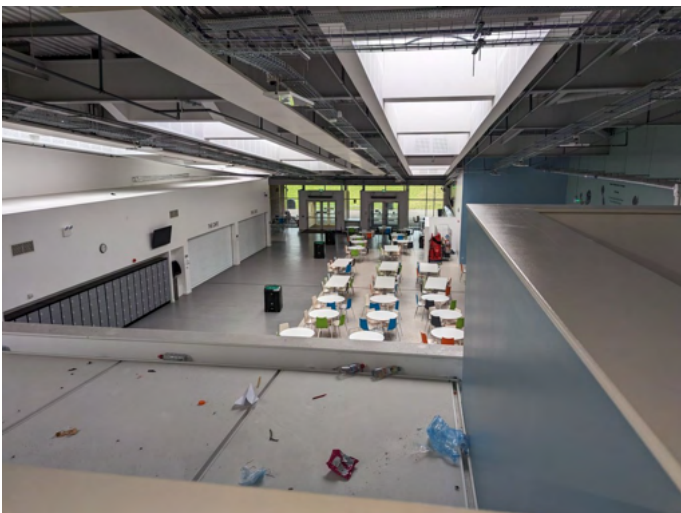
Lasswade



Bertha Park



Classroom overlooking Bertha Park dinner hall —partitions used to lessen distraction



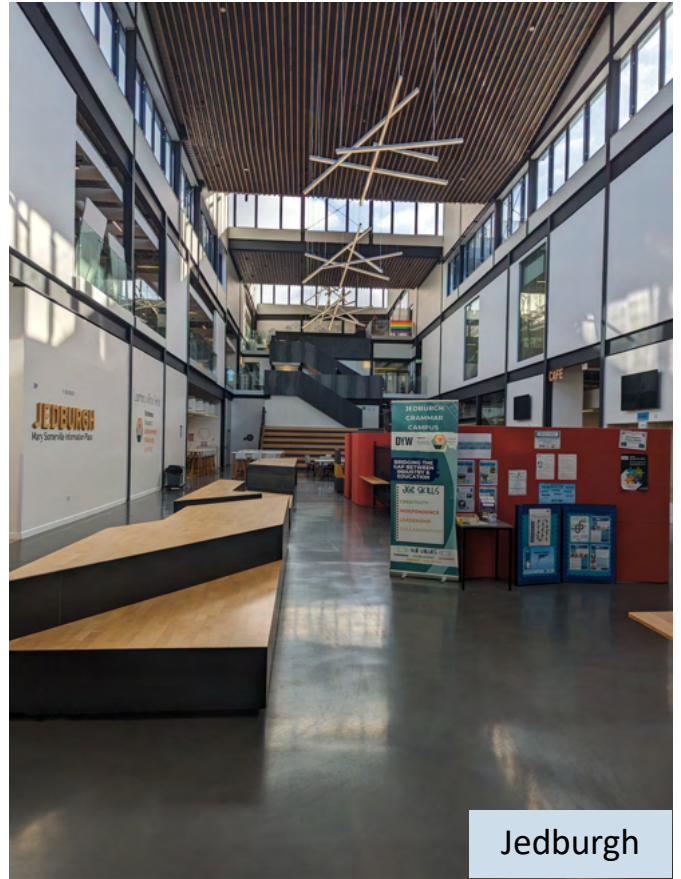
West Calder

Dinner Halls cont.



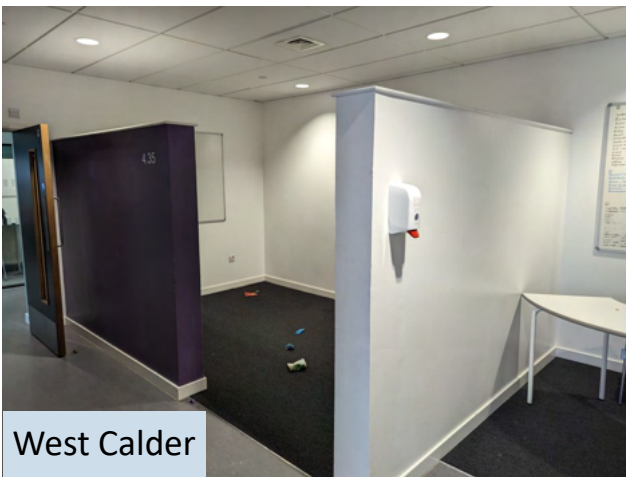
Jedburgh

Jedburgh— Open seating is at far end of main hall pictured right.

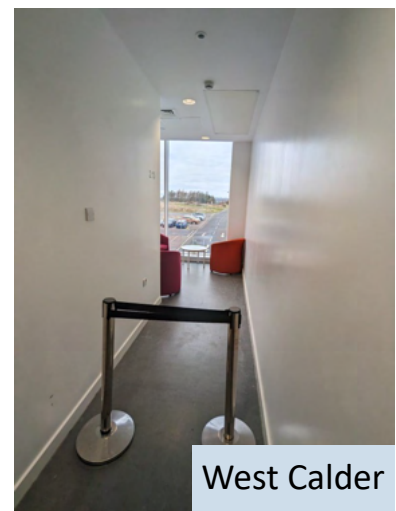


Jedburgh

Un-used wee nooks/ study space



West Calder



West Calder

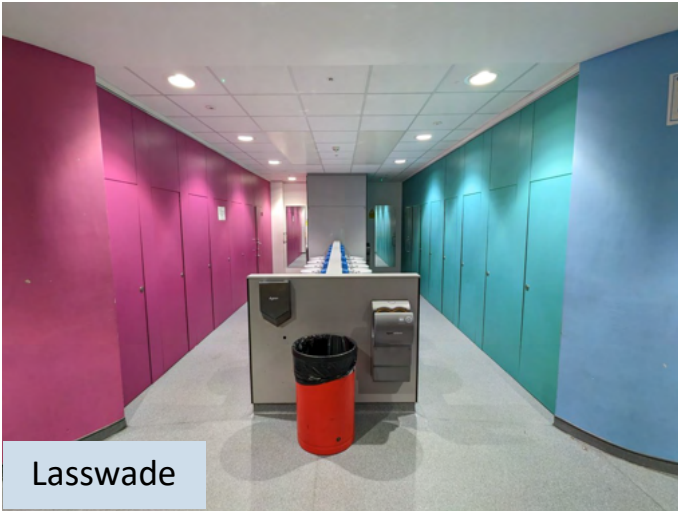


Jedburgh



West Calder

Toilets



Lasswade



West Calder



Bertha Park

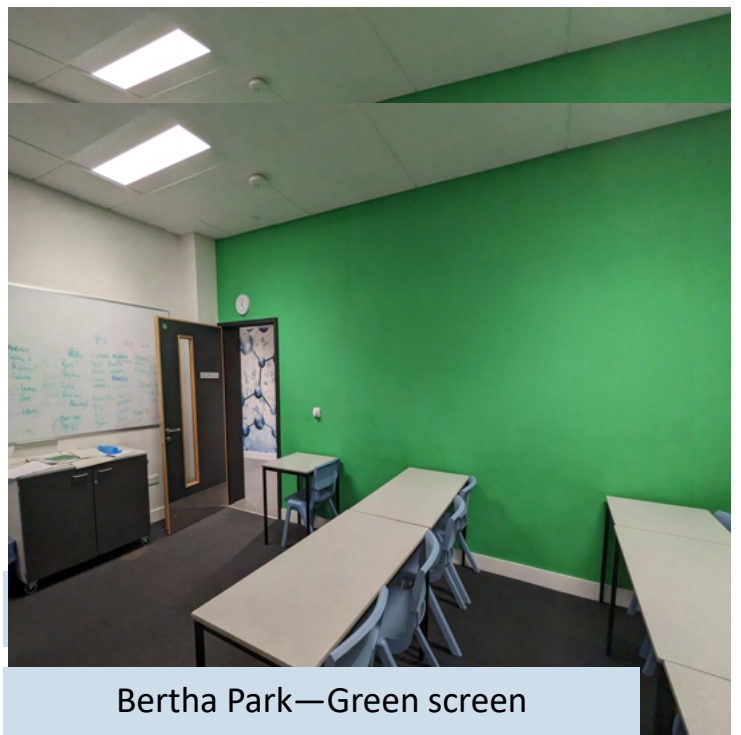


Jedburgh

Other pictures



Bertha Park— Recording Studio



Bertha Park—Green screen

Bertha Park (various)



Library



Unused breakout area

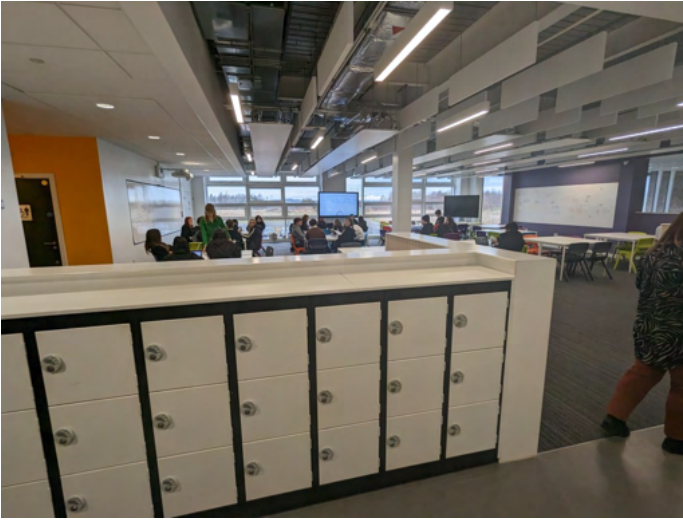


Double science classroom



Seat benches too far from table—needed extra chairs

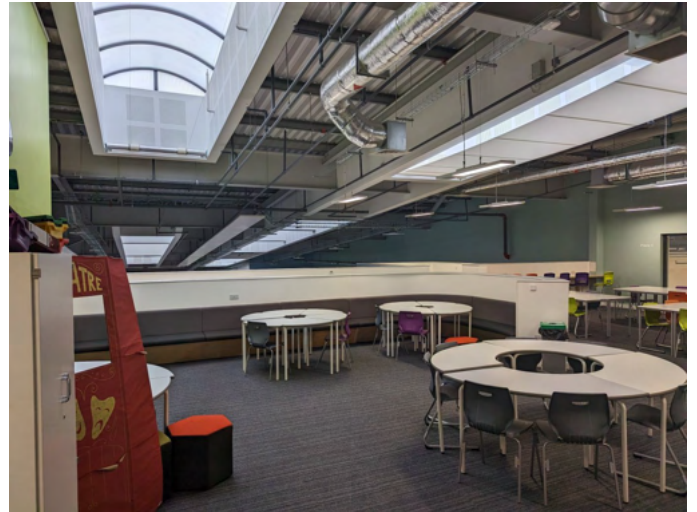
West Calder (various)



Open area classroom—time tabled, in use



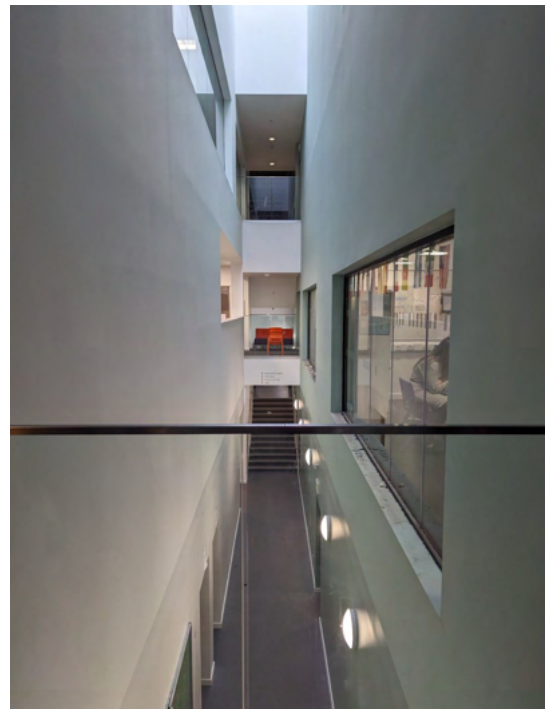
Break out areas for study



Noisy ventilation machinery on roof



Library & Noisy funnel (PE Corridor)



Lasswade (various)



Unused open area



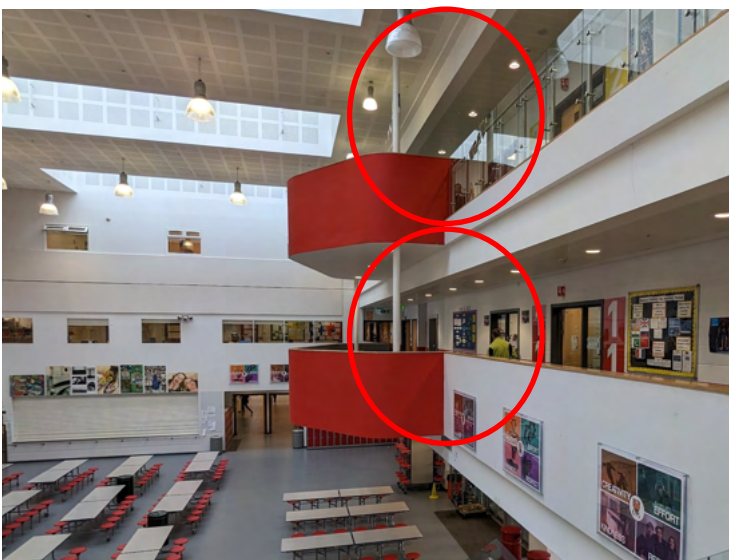
Reflection issues—light above smart board causes problems



Example of water damage due to leaks
(various issues over the year, only 9 years since new)



Additional use of temporary and sound and visual barriers in open areas



Red Circles show the two new walls, retro-fitted 1 year after opening. These classrooms were open to the atrium area / balcony on initial design

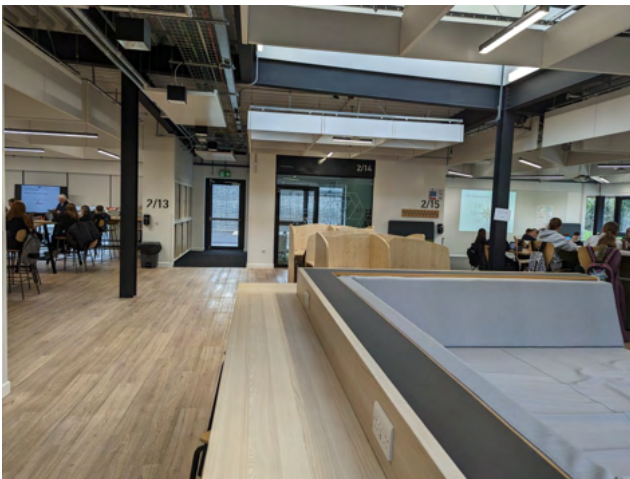
Jedburgh (various)



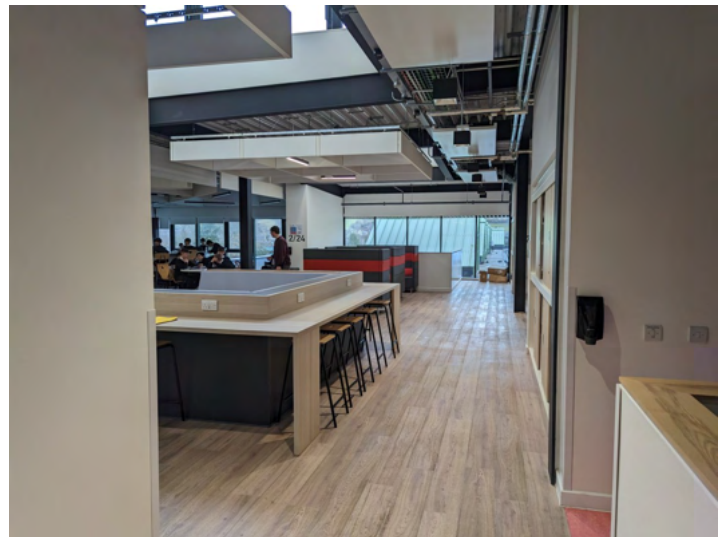
Public library and work/study space accessed from main hall corridor—open and unused.



Timetabled open classroom spaces



Two double classrooms open to each other and a study space and lounge bench



Science classroom



Stairwells—all hard surfaces