

# Listed Grade 1 Refurbishment

Previously badly altered Barn  
Left to deteriorate  
Restoration to former glory  
Conversion to House



# Listed Grade 1 Barn to House

- **Architects: Borgos Dance & Partners**
- **Specification: ASWS Brian Murphy**
- **Neglected barn and site**
- **Badly rebuilt with wrong materials**
- **Broken post and beam roof**
- **Wild flowers and grasses**
- **Biodiversity to be maintained**

# Listed Grade I Barn





# Altered quality old buildings

- Alterations out of character or poorly constructed
- Determining age of each alteration
- Deciding which age to return it to
- Inappropriate materials by inexperienced designers destroy sound construction



# Listed Grade I Barn Problems and Solutions

- No services penetrations through roof:
- Underground pipes and flues to isolated plant room
- no stack effect to exploit
- all mechanically assisted

# Listed Grade I Barn



# Proposed Extension





# Listed Grade I Barn Problems and Solutions

- No modern construction
- Demolish modern east wing: pine frame and white brick, concrete plain tiling
- Replace with oak frame, red brick and clay plain tiling

# Listed Grade I Barn Problems and Solutions

- No change to roof profile/height:
  - Remove roof tiling
  - add 25 mm. thick multi-layer reflective foil insulation relay roof tiling
  - equivalent to 150 mm Rockwool allegedly



# Listed Grade I Barn

## Problems and Solutions

- No modern materials on elevations
- Replace new construction with old
- No change to external appearance
- Insulated internal dry lining
- No changes to elevations
- High performance glazing in existing openings on north and south elevations

# Listed Grade I Barn

## Problems and Solutions

- **No modern construction**
- **Demolish modern east wing:**
  - pine frame
  - white brick,
  - concrete plain tiling
- **Replace with**
  - oak frame,
  - red brick
  - clay plain tiling

# Listed Grade I Barn

## Problems and Solutions

- Repair broken ridge & settled frame
- Strip roof, dismantle frame, underpin posts, rebuild frame and add insulation and relay roof coverings
- No glazing in opening
- Internal glazing on inner face of wall



[www.greenspec.co.uk](http://www.greenspec.co.uk)

# Landscape Waste Minimisation

Landscape waste management  
Biodiversity Maintenance





[www.greenspec.co.uk](http://www.greenspec.co.uk)

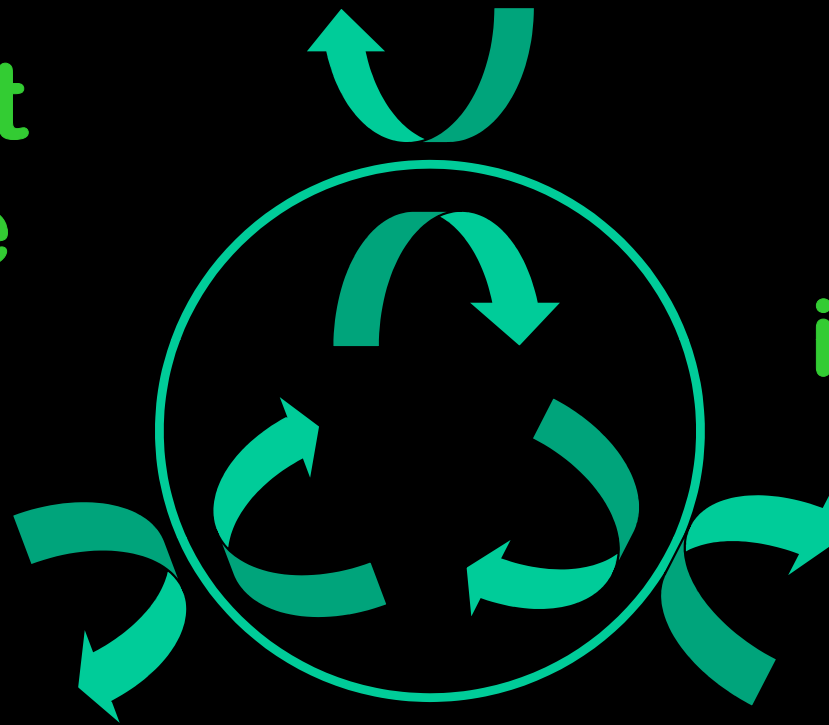
# Landscape waste minimisation

Site Autonomy  
Green Waste Composting

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# Site Autonomy

No export  
from site



No  
Materials  
imported to  
site

# Listed Grade I Barn Biodiversity maintenance & Landscape Waste Management



# Seeds & Turf

- **Collect seeds, dry & store**
- **Set-up compost area on site, segregate**
- **Rake grass, collect leaf-litter, compost**
- **Cut grass, collect cuttings, compost**
- **Cut turf, roll and set aside**
- **Turf scraps add to compost**

# Top soil and turf

- Strip site topsoil and stockpile
- Lay turf on stock piled topsoil
- Set wild flower seeds on stockpile
- Plant wild flowers on stockpile, to suppress weeds

# Subsoil

- **Excavate subsoil**
- **For roads and paths, services and foundations**
- **Stockpile subsoil**



# Topsoil & Subsoil Stockpile on site



# Site Strip

- Offer excess wild turf in internet exchange sites
- All green waste scraps to compost
- Excavate gravel
- Setaside for later use

# Reuse of stockpiled materials

- Reuse Subsoil over site
- Spread subsoil thinly before topsoil
- Reuse composted materials to add to and enrich topsoil
- Reuse turf on site
- Reuse gravel on flat roof as brown roof

# Subsoil opportunities

- Spread subsoil thinly over site before relaying topsoil
- Use for landscape contouring
- Arena banking around sports fields
- Sleeping policemen to 'beach' cars
- Acoustic mounds
- Mound traffic islands
- Rammed earth walling
- Mix with compost to make more top soil

# Topsoil

- Relay topsoil as required
- Reusing stockpiled topsoil
- Again collect seeds and plants, rake leaves, cut grass and compost, cut turf from top of stockpiles
- Use matured compost to enrich topsoil
- Relay turf, sow seeds and plants

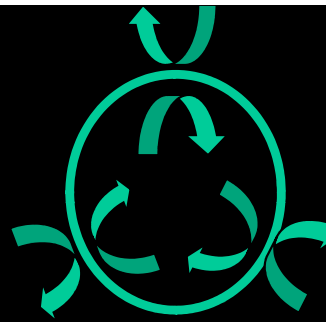




# Meadow Grass & Wild Flowers

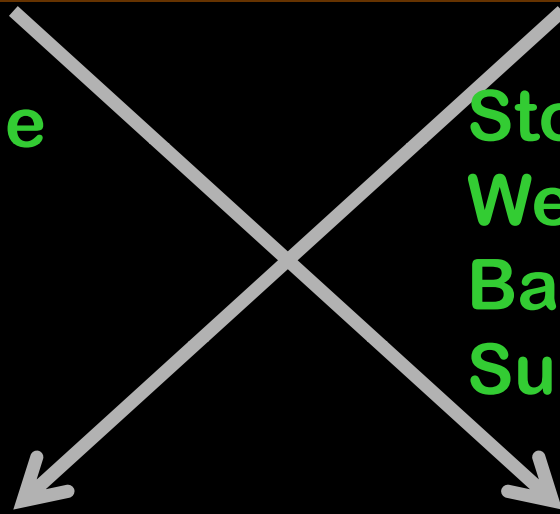
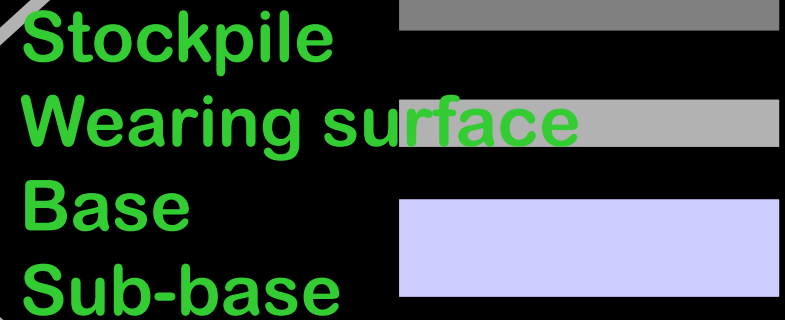


# Rearranging pathways



Proposed path in landscape

Existing path in landscape



Recycle surface, base & sub-base as sub-base & base  
add new wearing surface

# Existing Hard areas

- If being removed consider their use in hardcore for new hard areas
- Exchange locations of hard and soft materials