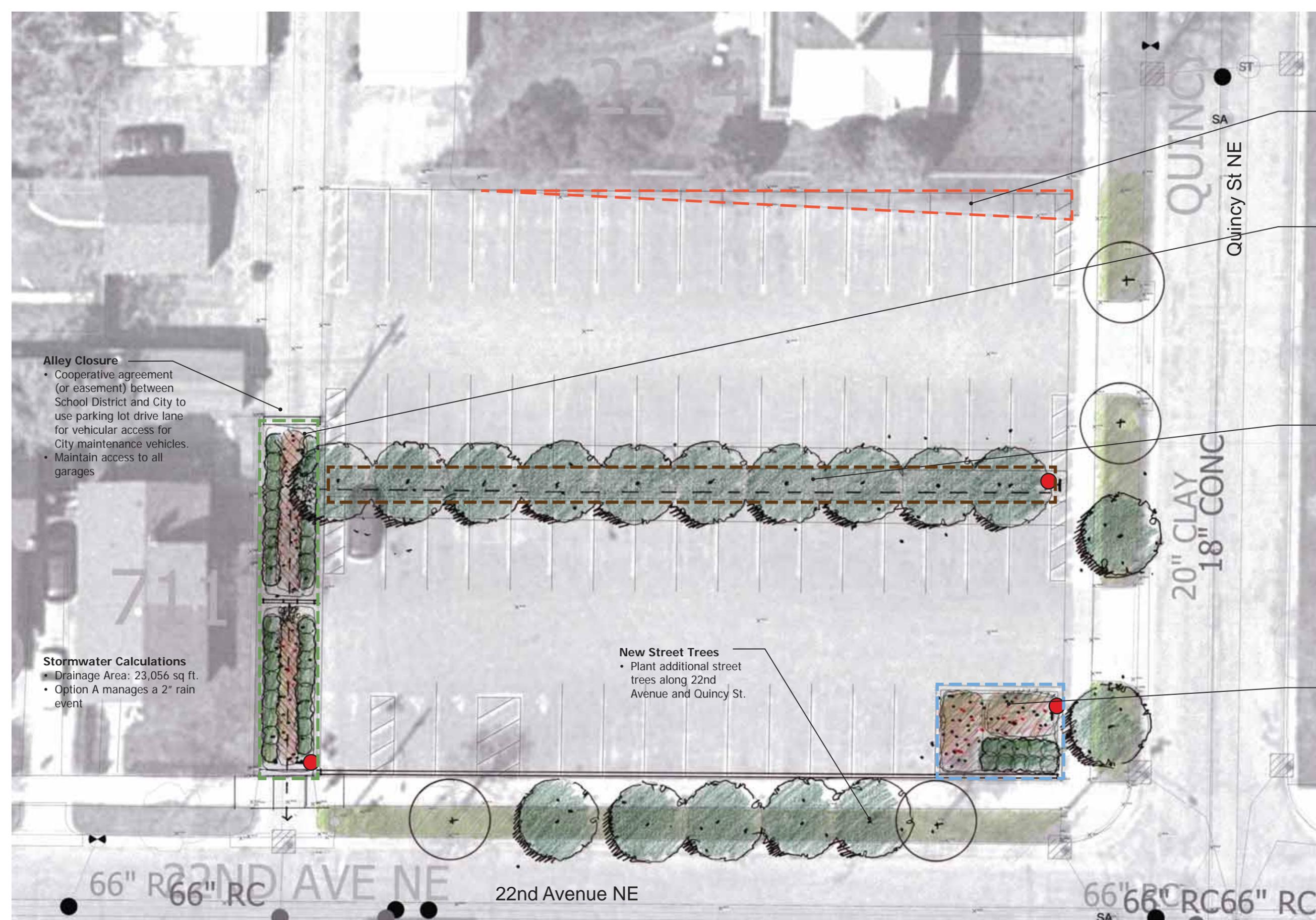


NE Green Campus- Parking Lot Stormwater Options

Existing Conditions

9.19.2012





- **Interpretive Signage**
 - Identifies stormwater BMP
- Expand parking lot area**
 - Expand NE corner of parking area to accommodate re-striping of parking lot.
 - 420 total sf.
- Rainwater Infiltration Area**
 - Create an infiltration area in portion of alley that is closed.
 - Drainage from entire alley and overflow from tree trench will flow into this area.
 - Approximately 1120 sf. of storage area. Approx. 15' wide x 75' long x 4' deep.
 - Drought tolerant native perennial plantings
 - Overflow drain tile to storm sewer in 22nd Avenue.
- Tree Trench Infiltration Area**
 - Create an infiltration area in center portion of parking lot by reconfiguring parking lot striping.
 - Drainage from upper portion of parking lot will flow into this area.
 - Approximately 1050 sf. of storage area. Approx. 7' wide x 150' long x 4' deep.
 - Rock mulch or native perennial plantings on surface of tree trench
 - Overflow drain tile to rainwater infiltration area in alley.
 - (10) new street trees will be planted.
 - Storage area for stormwater will extend 5' on both sides of tree trench under paving. Approx. 1500 total sf.
- Rainwater Infiltration Area**
 - Create an infiltration area in lower portion of parking lot and remove (3) parking spaces
 - Drainage from lower portion of parking lot will flow into this area.
 - Approximately 540 sf. of storage area. 18' wide x 30' long x 4' deep.
 - Native perennial plantings
 - Overflow drain tile to storm sewer in 22nd Avenue.
 - Add concrete curb along southern portion of parking lot to direct stormwater into this area.

Alley Closure

- Cooperative agreement (or easement) between School District and City to use parking lot drive lane for vehicular access for City maintenance vehicles.
- Maintain access to all garages

Stormwater Calculations

- Drainage Area: 23,056 sq ft.
- Option A manages a 2" rain event

New Street Trees

- Plant additional street trees along 22nd Avenue and Quincy St.

NE Green Campus- Parking Lot Stormwater Options

Option A

9.19.2012

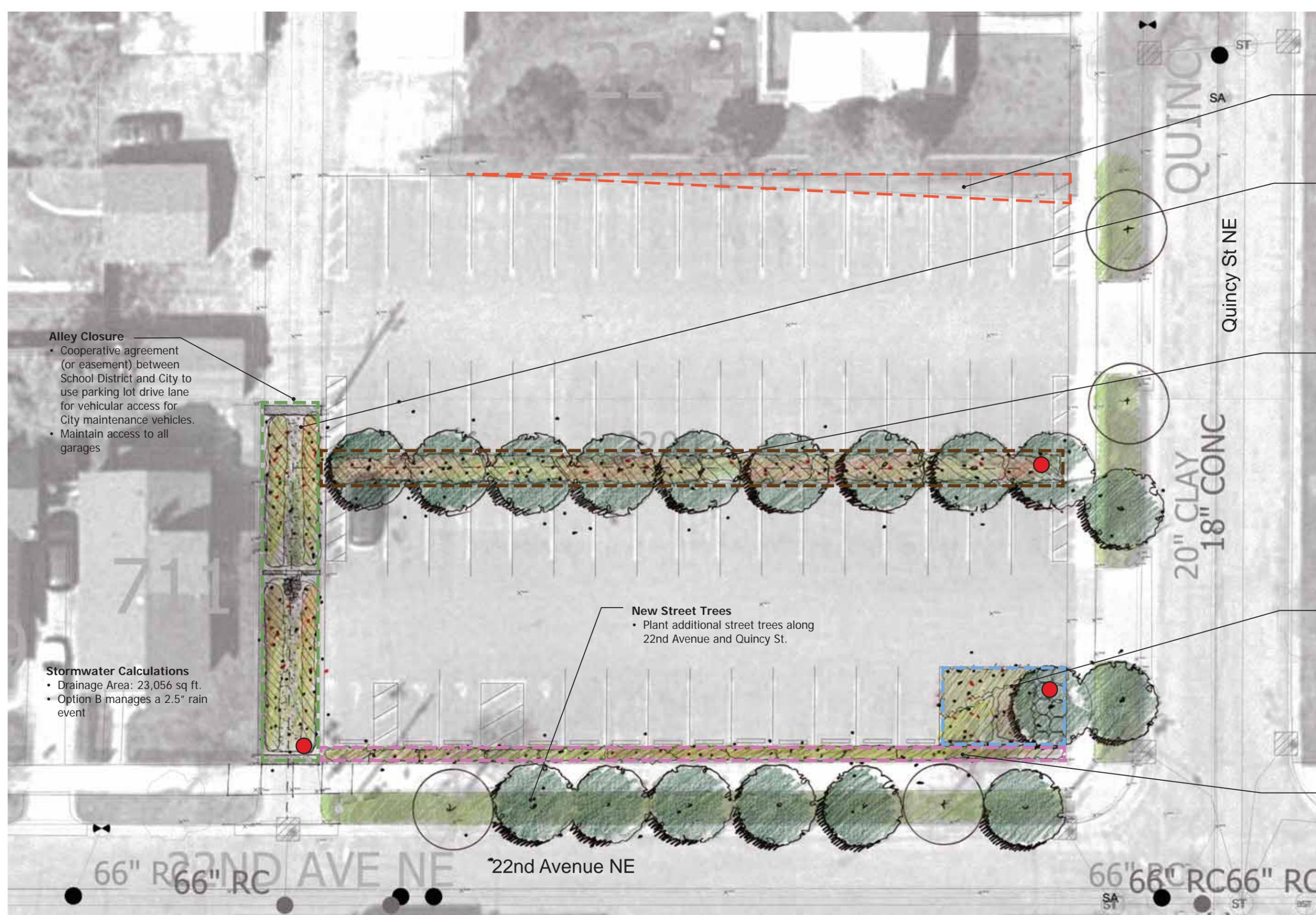




NE Green Campus- Parking Lot Stormwater Options

Option A - Views

9.19.2012



- **Interpretive Signage**
 - Identifies stormwater BMP

- Expand parking lot area**
 - Expand NE corner of parking area to accommodate re-striping of parking lot.
 - 420 total sf.

- Rainwater Infiltration Area**
 - Create an infiltration area in portion of alley that is closed.
 - Drainage from entire alley and overflow from tree trench will flow into this area.
 - Approximately 1120 sf. of storage area. 15' wide x 75' long x 4' deep.
 - Native perennial plantings
 - Overflow drain tile to storm sewer in 22nd Avenue.

- Tree Trench Infiltration Area**
 - Create an infiltration area in center portion of parking lot by reconfiguring parking lot striping.
 - Drainage from upper portion of parking lot will flow into this area.
 - Approximately 1050 sf. of storage area. Approx. 7' wide x 150' long x 4' deep.
 - Rock mulch or native perennial plantings on surface of tree trench
 - Overflow drain tile to rainwater infiltration area in alley.
 - (10) new street trees will be planted.
 - Storage area for stormwater will extend 5' on both sides of tree trench under paving. Approx. 1500 total sf.

- Rainwater Infiltration Area**
 - Create an infiltration area in lower portion of parking lot and remove (3) parking spaces
 - Drainage from lower portion of parking lot will flow into this area.
 - Approximately 540 sf. of storage area. 18' wide x 30' long x 4' deep.
 - Native perennial plantings
 - Overflow drain tile to storm sewer in 22nd Avenue.

- Infiltration Curb Swale**
 - Drainage from lower portion of parking lot will flow into the curb swale and be directed to the infiltration area.
 - Approximately 450 sf. of storage area. 3' wide x 150' long x 3' deep.
 - Native perennial plantings

Alley Closure

- Cooperative agreement (or easement) between School District and City to use parking lot drive lane for vehicular access for City maintenance vehicles.
- Maintain access to all garages

Stormwater Calculations

- Drainage Area: 23,056 sq ft.
- Option B manages a 2.5" rain event

New Street Trees

- Plant additional street trees along 22nd Avenue and Quincy St.

NE Green Campus- Parking Lot Stormwater Options

Option B

9.19.2012

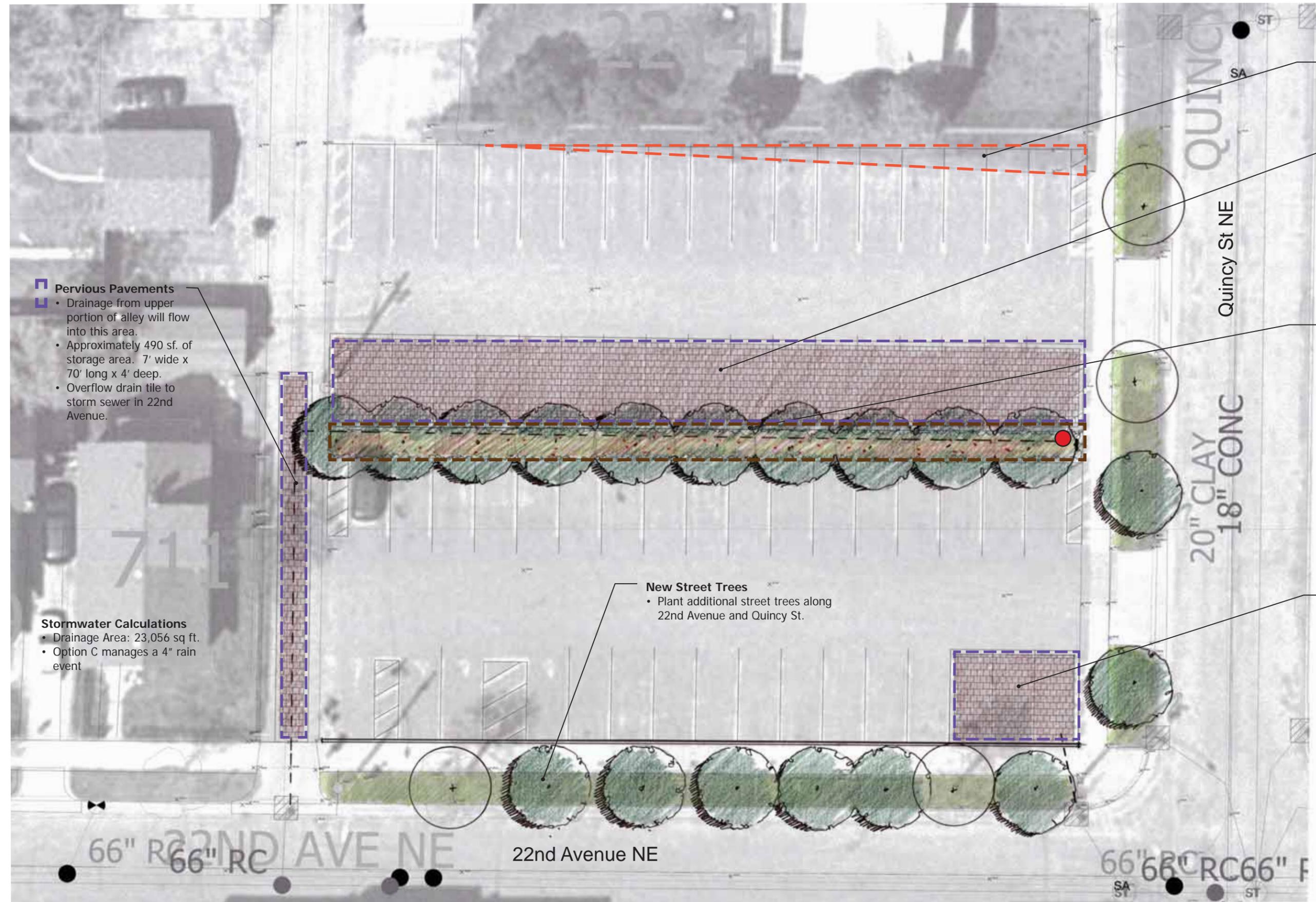




NE Green Campus- Parking Lot Stormwater Options

Option B - Views

9.19.2012



● Interpretive Signage
 • Identifies stormwater BMP

▭ Expand parking lot area
 • Expand NE corner of parking area to accommodate re-striping of parking lot.
 • 420 total sf.

▭ Pervious Pavements
 • Drainage from upper portion of parking lot will flow into this area.
 • Approximately 3000 sf. of storage area. 20' wide x 150' long x 4' deep.

▭ Tree Trench Infiltration Area
 • Create an infiltration area in center portion of parking lot by reconfiguring parking lot striping.
 • Drainage from upper portion of parking lot will flow into this area.
 • Approximately 1050 sf. of storage area. Approx. 7' wide x 150' long x 4' deep.
 • Rock mulch or native perennial plantings on surface of tree trench
 • Overflow drain tile to pervious pavement strip in alley.
 • (10) new street trees will be planted.
 • Storage area for stormwater will extend 5' on south side of tree trench under paving. Approx. 750 total sf.

▭ Pervious Pavements
 • Create a pervious pavement infiltration area in lower portion of parking lot and maintain all parking spaces
 • Drainage from lower portion of parking lot will flow into this area.
 • Approximately 540 sf. of storage area. 18' wide x 30' long x 4' deep.
 • Overflow drain tile to storm sewer in 22nd Avenue.
 • Add concrete curb along southern portion of parking lot to direct stormwater into this area.

▭ Pervious Pavements
 • Drainage from upper portion of alley will flow into this area.
 • Approximately 490 sf. of storage area. 7' wide x 70' long x 4' deep.
 • Overflow drain tile to storm sewer in 22nd Avenue.

Stormwater Calculations
 • Drainage Area: 23,056 sq ft.
 • Option C manages a 4" rain event

New Street Trees
 • Plant additional street trees along 22nd Avenue and Quincy St.



NE Green Campus- Parking Lot Stormwater Options

Option C

9.19.2012

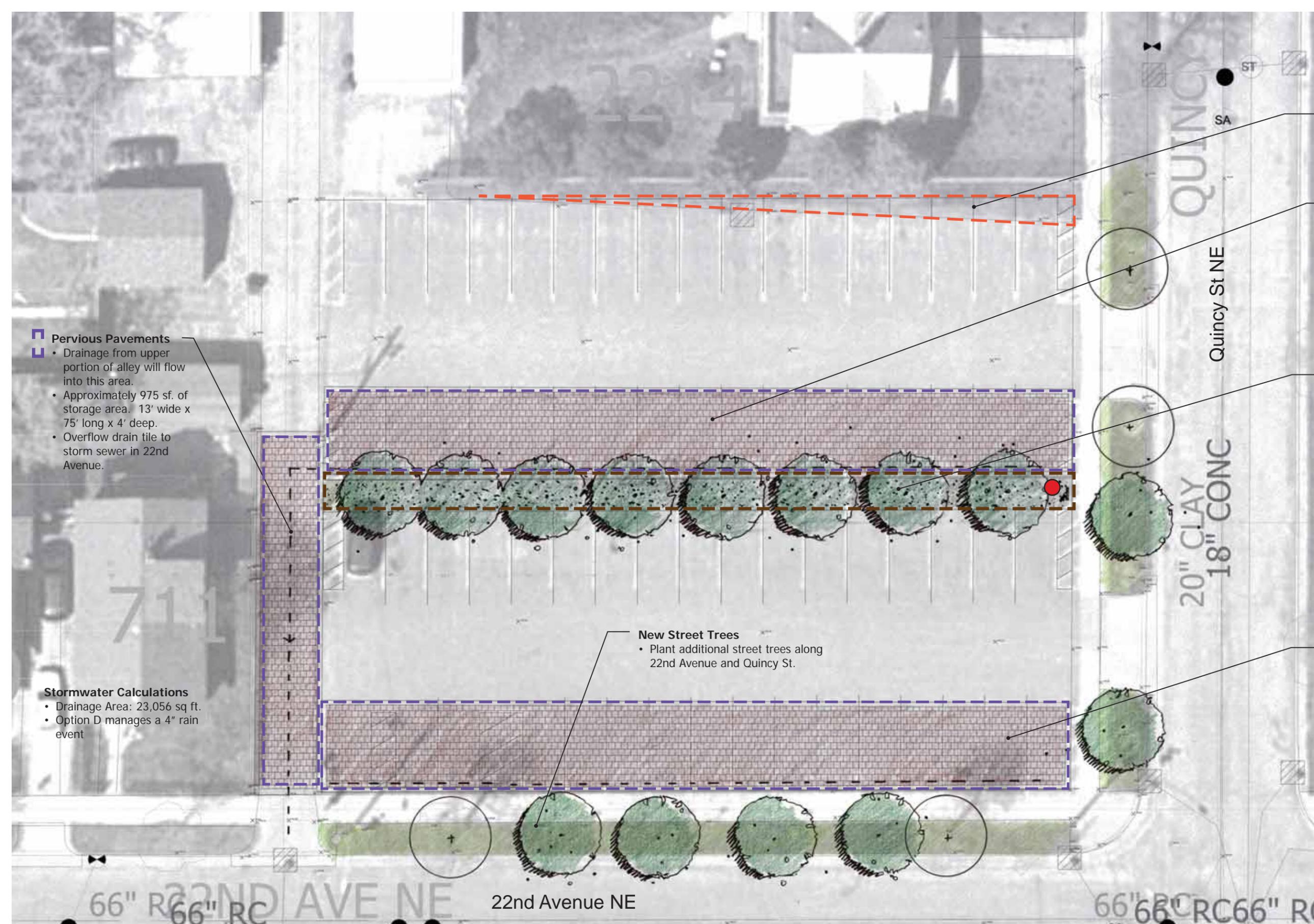




NE Green Campus- Parking Lot Stormwater Options

Option C - Views

9.19.2012



● Interpretive Signage
 • Identifies stormwater BMP

▭ Expand parking lot area
 • Expand NE corner of parking area to accommodate re-striping of parking lot.
 • 420 total sf.

▭ Pervious Pavements
 • Drainage from upper portion of parking lot will flow into this area.
 • Approximately 3000 sf. of storage area. 20' wide x 150' long x 4' deep.

▭ Tree Trench Infiltration Area
 • Create an infiltration area in center portion of parking lot by reconfiguring parking lot striping.
 • Drainage from upper portion of parking lot will flow into this area.
 • Approximately 1050 sf. of storage area. 7' wide x 150' long x 4' deep.
 • Rock mulch or native perennial plantings on surface of tree trench
 • Overflow drain tile to pervious pavement strip in alley.
 • (10) new street trees will be planted.
 • Storage area for stormwater will extend 5' on south side of tree trench under paving. Approx. 750 total sf.

▭ Pervious Pavements
 • Create a pervious pavement infiltration area in lower portion of parking lot and maintain all parking spaces
 • Drainage from lower portion of parking lot will flow into this area.
 • Approximately 3000 sf. of storage area. 20' wide x 150' long x 4' deep.
 • Overflow drain tile to storm sewer in 22nd Avenue.

▭ Pervious Pavements
 • Drainage from upper portion of alley will flow into this area.
 • Approximately 975 sf. of storage area. 13' wide x 75' long x 4' deep.
 • Overflow drain tile to storm sewer in 22nd Avenue.

Stormwater Calculations
 • Drainage Area: 23,056 sq ft.
 • Option D manages a 4" rain event

New Street Trees
 • Plant additional street trees along 22nd Avenue and Quincy St.

NE Green Campus- Parking Lot Stormwater Options

Option D

9.19.2012

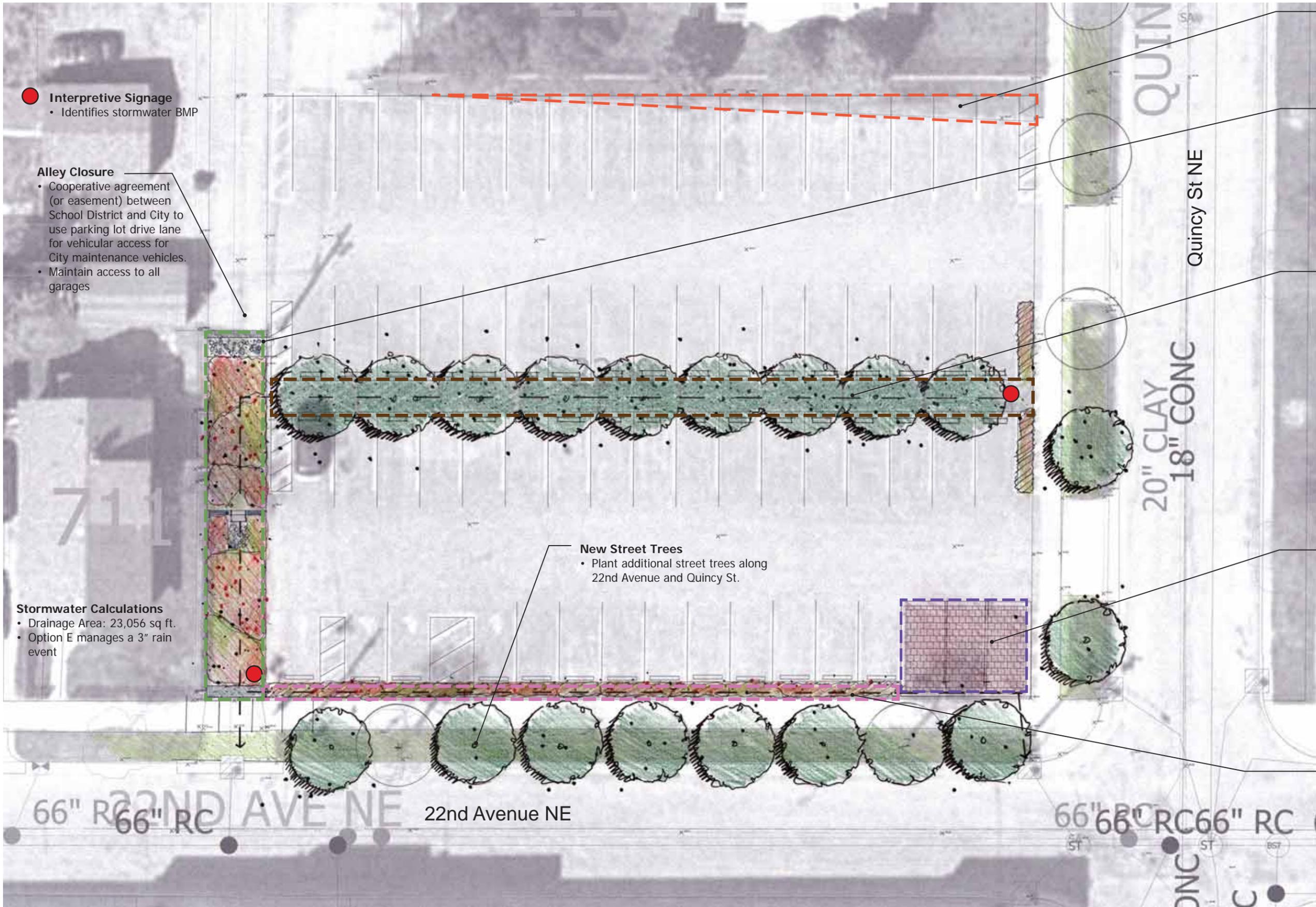




NE Green Campus- Parking Lot Stormwater Options

Option D - Views

9.19.2012



Interpretive Signage

- Identifies stormwater BMP

Alley Closure

- Cooperative agreement (or easement) between School District and City to use parking lot drive lane for vehicular access for City maintenance vehicles.
- Maintain access to all garages

Stormwater Calculations

- Drainage Area: 23,056 sq ft.
- Option E manages a 3" rain event

New Street Trees

- Plant additional street trees along 22nd Avenue and Quincy St.

Expand parking lot area

- Expand NE corner of parking area to accommodate re-striping of parking lot.
- 420 total sf.

Rainwater Infiltration Area

- Create an infiltration area in portion of alley that is closed.
- Drainage from entire alley and overflow from tree trench will flow into this area.
- Approximately 1120 sf. of storage area. 15' wide x 75' long x 4' deep.
- Native perennial plantings
- Overflow drain tile to storm sewer in 22nd Avenue.

Tree Trench Infiltration Area

- Create an infiltration area in center portion of parking lot by reconfiguring parking lot striping.
- Drainage from upper portion of parking lot will flow into this area.
- Approximately 1050 sf. of storage area. 7' wide x 150' long x 4' deep.
- Rock mulch or native perennial plantings on surface of tree trench
- Overflow drain tile to pervious pavement strip in alley.
- (10) new street trees will be planted.
- Storage area for stormwater will extend 5' on south side of tree trench under paving. Approx. 750 total sf.
- Parking wheel stops

Pervious Pavements

- Create a pervious pavement infiltration area in lower portion of parking lot and maintain all parking spaces
- Drainage from lower portion of parking lot will flow into this area.
- Approximately 540 sf. of storage area. 18' wide x 30' long x 4' deep.
- Overflow drain tile to storm sewer in 22nd Avenue.
- Add concrete curb along southern portion of parking lot to direct stormwater into this area.

Infiltration Curb Swale

- Drainage from lower portion of parking lot will flow into the curb swale and be directed to the infiltration area.
- Approximately 375 sf. of storage area. 3' wide x 125' long x 3' deep.
- Native perennial plantings
- Parking wheel stops



NE Green Campus- Parking Lot Stormwater Options

Option E

9.19.2012

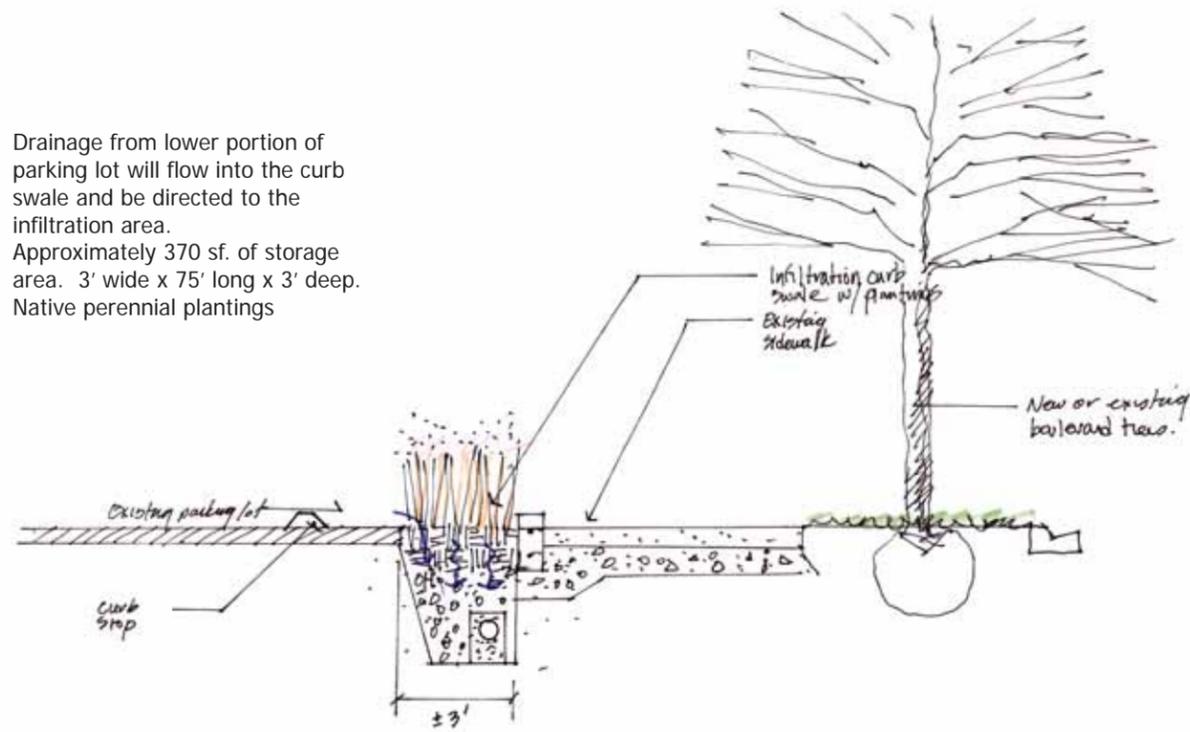


NE Green Campus- Parking Lot Stormwater Options

Option E - Views

9.19.2012

- Drainage from lower portion of parking lot will flow into the curb swale and be directed to the infiltration area.
- Approximately 370 sf. of storage area. 3' wide x 75' long x 3' deep.
- Native perennial plantings

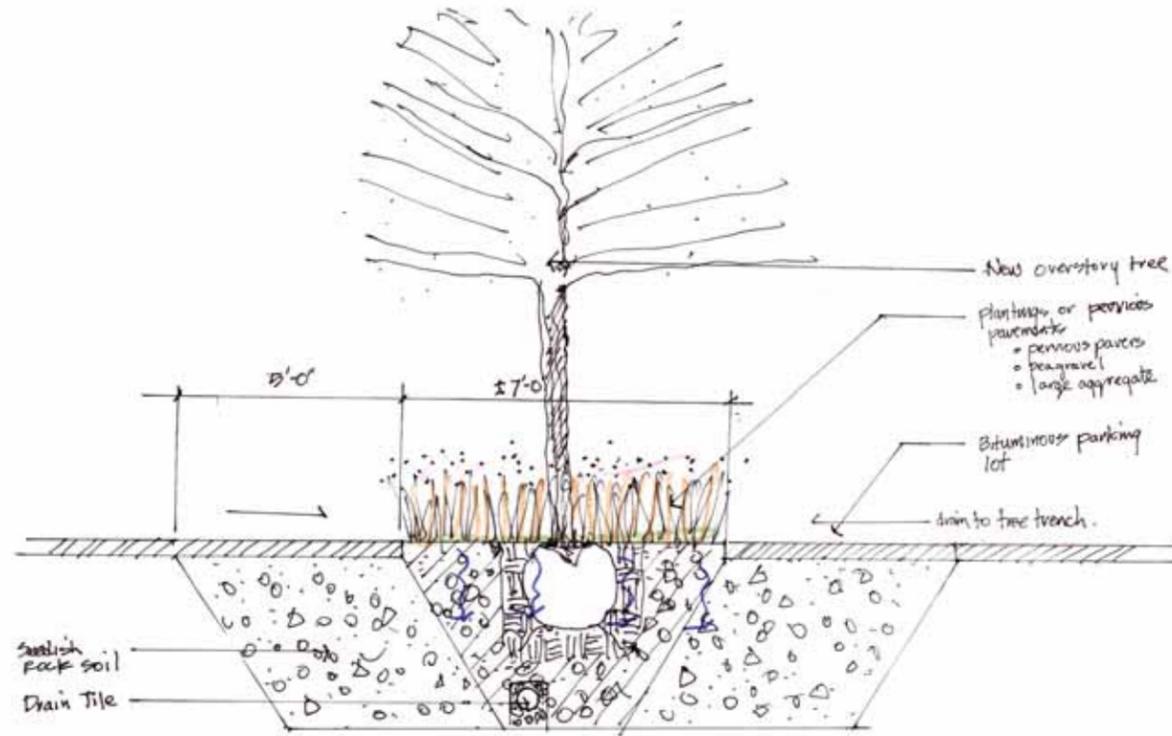


Infiltration Curb Swale

**NE Green Campus Implementation
Runoff Computations**

	Drainage Area, sq ft	Rain Event, inches	Runoff Volume, cu ft	Porosity	Subgrade Volume, cu ft	Required Surface Area, sq ft ¹
Edison School Parking Lot	23,056	0.5	961	40%	2,402	600
		1	1,921	40%	4,803	1,201
		1.25	2,402	40%	6,004	1,501
		2	3,843	40%	9,607	2,402
		2.5	4,803	40%	12,008	3,002
		4	7,685	40%	19,213	4,803

¹ Based on four-foot deep trench



Tree Trench Infiltration Area

- Create an infiltration area in center portion of parking lot by reconfiguring parking lot stripping.
- Approximately 1050 sf. of storage area. 7' wide x 150' long x 4' deep.
- Rock mulch or native perennial plantings on surface of tree trench
- Overflow drain tile to pervious pavement/ infiltration area in alley.
- Location of new street tree plantings.
- Storage area for stormwater will extend 5' on one/both sides of tree trench under paving. Approx. 750/1500 total sf.

NE Green Campus- Parking Lot Stormwater Options

Stormwater Details