

Drainage Area OUTFALL 5C
Drainage Area A Land Cover (acres)
Forest/Open Space (acres)
Managed Turf (acres)
Impervious Cover (acres)
Totals
Land Cover Rv

Stormwater Best Management Practices (RR = Runoff Reduction)
Practice: Runoff Reduction Credit (%), Managed Turf Credit Area (acres), Impervious Cover Credit Area (acres), Volume from Upstream Practice (ft^3), Runoff Reduction (ft^3), Remaining Runoff Volume (ft^3), Total BMP Treatment Volume (ft^3)

Drainage Area OUTFALL 5D
Drainage Area A Land Cover (acres)
Forest/Open Space (acres)
Managed Turf (acres)
Impervious Cover (acres)
Totals
Land Cover Rv

Stormwater Best Management Practices (RR = Runoff Reduction)
Practice: Runoff Reduction Credit (%), Managed Turf Credit Area (acres), Impervious Cover Credit Area (acres), Volume from Upstream Practice (ft^3), Runoff Reduction (ft^3), Remaining Runoff Volume (ft^3), Total BMP Treatment Volume (ft^3)

Drainage Area OUTFALL 6A
Drainage Area A Land Cover (acres)
Forest/Open Space (acres)
Managed Turf (acres)
Impervious Cover (acres)
Totals
Land Cover Rv

Stormwater Best Management Practices (RR = Runoff Reduction)
Practice: Runoff Reduction Credit (%), Managed Turf Credit Area (acres), Impervious Cover Credit Area (acres), Volume from Upstream Practice (ft^3), Runoff Reduction (ft^3), Remaining Runoff Volume (ft^3), Total BMP Treatment Volume (ft^3)

Drainage Area OUTFALL 6B
Drainage Area A Land Cover (acres)
Forest/Open Space (acres)
Managed Turf (acres)
Impervious Cover (acres)
Totals
Land Cover Rv

Stormwater Best Management Practices (RR = Runoff Reduction)
Practice: Runoff Reduction Credit (%), Managed Turf Credit Area (acres), Impervious Cover Credit Area (acres), Volume from Upstream Practice (ft^3), Runoff Reduction (ft^3), Remaining Runoff Volume (ft^3), Total BMP Treatment Volume (ft^3)

DEQ DESIGN STANDARD 9
OUTFALL #5C
OUTFALL CHARACTERISTICS
BIORETENTION CREDIT AREA
MAX BMP T_v=
TREE PITS
Silva Cells

ENGINEERING ANALYSIS
TREE PIT
SILVA CELL
Porosity, η
Depth (ft)
Effective Depth (ft)
Surface Storage, η=
Mulch Layer (River Stone), η=
Bioretention Soil Media, η=
Gravel, η=

SURFACE AREA SIZING
2013 Design Standard
SA_{MIN} = Tv/D_{EFF}
SA_{MIN} = 238.3 SF
PROVIDED SA
TREE PITS
SILVACELL
TOTAL PROVIDED

REQUIRED VOLUME CHECK
PROVIDED VOLUME
REQUIRED Tv
TREE PIT
SILVA CELL
TOTAL

DEQ DESIGN STANDARD 9
OUTFALL #5D
OUTFALL CHARACTERISTICS
BIORETENTION CREDIT AREA
MAX BMP T_v=
TREE PITS
Silva Cells

ENGINEERING ANALYSIS
TREE PIT
SILVA CELL
Porosity, η
Depth (ft)
Effective Depth (ft)
Surface Storage, η=
Mulch Layer (River Stone), η=
Bioretention Soil Media, η=
Gravel, η=

SURFACE AREA SIZING
2013 Design Standard
SA_{MIN} = Tv/D_{EFF}
SA_{MIN} = 257.5 SF
PROVIDED SA
TREE PITS
SILVACELL
TOTAL PROVIDED

REQUIRED VOLUME CHECK
PROVIDED VOLUME
REQUIRED Tv
TREE PIT
SILVA CELL
TOTAL

DEQ DESIGN STANDARD 9
OUTFALL #5
Drainage Area
DA_{PRE}
DA_{POST}

Energy Balance
Q_{DEV} ≤ IF * (QPRE + RVPRE) / RVI

Q_{PRE-1YR}
RV_{PRE-1YR}
RV_{DEV-1YR}
IF
Q_{DEV-1YR} ≤ 6.2408 cfs
Estimated Storage Required
Volume Provided

MEETS REQUIREMENTS 101%

DEQ DESIGN STANDARD 9
OUTFALL #6A
OUTFALL CHARACTERISTICS
BIORETENTION CREDIT AREA
MAX BMP T_v=
TREE PITS
Silva Cells

ENGINEERING ANALYSIS
TREE PIT
SILVA CELL
Porosity, η
Depth (ft)
Effective Depth (ft)
Surface Storage, η=
Mulch Layer (River Stone), η=
Bioretention Soil Media, η=
Gravel, η=

SURFACE AREA SIZING
2013 Design Standard
SA_{MIN} = Tv/D_{EFF}
SA_{MIN} = 240.8 SF
PROVIDED SA
TREE PITS
SILVACELL
TOTAL PROVIDED

REQUIRED VOLUME CHECK
PROVIDED VOLUME
REQUIRED Tv
TREE PIT
SILVA CELL
TOTAL

DEQ DESIGN STANDARD 9
OUTFALL #6B
OUTFALL CHARACTERISTICS
BIORETENTION CREDIT AREA
MAX BMP T_v=
TREE PITS (OUTFALL)
Silva Cells

ENGINEERING ANALYSIS
TREE PIT
SILVA CELL
Porosity, η
Depth (ft)
Effective Depth (ft)
Surface Storage, η=
Mulch Layer (River Stone), η=
Bioretention Soil Media, η=
Gravel, η=

SURFACE AREA SIZING
2013 Design Standard
SA_{MIN} = Tv/D_{EFF}
SA_{MIN} = 205.2 SF
PROVIDED SA
TREE PITS
SILVACELL
TOTAL PROVIDED

REQUIRED VOLUME CHECK
PROVIDED VOLUME
REQUIRED Tv
TREE PIT
SILVA CELL
TOTAL

DEQ DESIGN STANDARD 9
OUTFALL #6
Drainage Area
DA_{PRE}
DA_{POST}

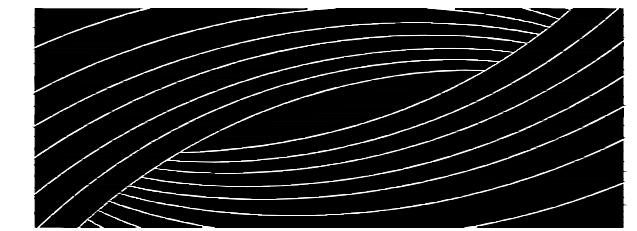
Energy Balance
Q_{DEV} ≤ IF * (QPRE + RVPRE) / RVI

Q_{PRE-1YR}
RV_{PRE-1YR}
RV_{DEV-1YR}
IF
Q_{DEV-1YR} ≤ 1.4584 cfs
Estimated Storage Required
Volume Provided

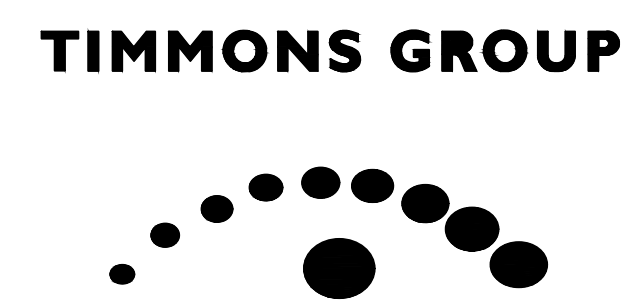
MEETS REQUIREMENTS 148%

WEST MAIN STREET

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REVISION:
SHEET NAME: STORMWATER MANAGEMENT COMPLIANCE CALCULATIONS
SHEET NUMBER: C1-810
DATE: 16 FEB 2017