JAN 2 3 2013
GC PLANNING COMMISSION

LEGEND

- CONCRETE MONUMENT FOUND
- 5/8" CAPPED IRON PIN SET
- 5/8" IRON PIN FOUND
- 1" IRON PIPE FOUND
- NAIL SET
- BENCHMARK
- EX. UTILITY POLE
- EX. GUY WIRE
- EX. UNDERGROUND ELECTRIC
- EX. OVERHEAD ELECTRIC
- EX. HVAC UNIT
- EX. TRANSFORMER
- EX. GROUND LIGHT
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- EX. UNDERGROUND TELEPHONE
- EX. OVERHEAD TELEPHONE
- EX. TELEPHONE MANHOLE
- EX. TELEPHONE PEDESTAL
- EX. GAS MAIN
- EX. GAS VALVE
- EX. UNDERGROUND CABLE TV
- EX. WATER MAIN
- EX. FIRE HYDRANT
- EX. WATER VALVE
- EX. WATER METER
- EX. IRRIGATION CONTROL VALVE
- EX. MANHOLE
- EX. CLEAN OUT
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. CATCH BASIN
- EX. INLET
- EX. YARD DRAIN
- EX. DOWN SPOUT
- EX. TRAFFIC CONTROL CABINET
- EX. TRAFFIC SIGNAL POLE
- EX. SIGN
- EX. GUARD POST (PIPE BOLLARD)
- EX. FLAG POLE
- EX. FENCE
- EX. SOIL BORING
- EX. HARDWOOD TREE
- 801 / 805 EX. CONTOUR LINES
- EX. CONCRETE
- EX. ASPHALT

NOTES

1.) OCCUPATION IN GENERAL FITS SURVEY.

2.) SOURCE DOCUMENTS AS NOTED.

3.) ALL MONUMENTATION IS IN GOOD CONDITION UNLESS OTHERWISE NOTED.

4.) BEARINGS ARE BASED ON THE STATE PLANE COORDINATE SYSTEM, (OSPC), OHIO SOUTH ZONE, BASED ON A GPS SURVEY UTILIZING CORS STATION "COLB" AND MONUMENT "FRANK 35". THE PROJECT COORDINATES ARE BASED ON OSPC AND HAVE BEEN SCALED TO GROUND BY USING A PROJECT ADJUSTMENT FACTOR OF 1.000059817 APPLIED AT BASE POINT N 687,300.00 E 1,808,400.00 . GRID AND GROUND COORDINATES ARE IDENTICAL AT THE BASE POINT.

5.) VERTICAL DATUM IS NAVD88.

6.) UTILITIES SHOWN ARE BASED ON PHYSICAL MARKINGS, PLAN INFORMATION PROVIDED BY UTILITY OWNERS, AND LOCATIONS OF ABOVE-GROUND APPURTENANCES. THE OHIO UTILITY PROTECTION SERVICE (OUPS) WAS CONTACTED ON AUGUST 22, 2012; OUPS TICKET #A223500504, A223500519, A223500534 & A223500540.

7.) THIS SURVEY IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY KLEINGERS AND ASSOCIATES IN AUGUST, 2012.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IS ACCURATE AND THAT ALL MONUMENTS SHOWN ON THE PLAN HAVE BEEN OR WILL BE SET.

MICHAEL L. KELLER — DATE
OHIO PROFESSIONAL SURVEYOR NO. 7978

STATE OF OHIO · MICHAEL L. KELLER · 7978 · REGISTERED PROFESSIONAL SURVEYOR

SCALE: 1"=30'

OHIO Utilities Protection SERVICE 811 or 1-800-362-2764 Call Before You Dig

KLEINGERS & ASSOCIATES
350 Worthington Rd. Suite B, Westerville, OH 43082
(614) 882-4311 Fax (614) 882-4479
www.KLEINGERS.com

NOTE:
UNDERGROUND UTILITIES ARE PLOTTED FROM A COMPILATION OF RECORD INFORMATION AND SURFACE INDICATIONS OF UNDERGROUND STRUCTURES. EXACT LOCATIONS CANNOT BE VERIFIED. PLEASE NOTIFY THE OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764 BEFORE ANY PERIOD OF EXCAVATION OR CONSTRUCTION ACTIVITY.

SHP LEADING DESIGN

4805 Montgomery Road, Suite 400, Cincinnati, Ohio 45212, 513-381-2112
236 High Street, Hamilton, Ohio 45011, 513-863-5441
250 Civic Center Drive, Suite 200, Columbus, Ohio 43215, 614-223-2124
1675 Broadway, Suite 1300, Denver, Colorado 80202, 303-209-7866

City Administrator _____
Service Director _____
Review for the City of Grove City Jackson _____
Township Fire Department _____

DEVELOPMENT PLAN
CITY PROJECT NO. _____
MONTEREY ELEMENTARY SCHOOL
2584 Dennis Lane, Grove City, Ohio 43123
SOUTH-WESTERN CITY SCHOOL DISTRICT
3805 Marlane Drive, Grove City, OH 43123

BASEMAP
DATE 12/21/12
C100

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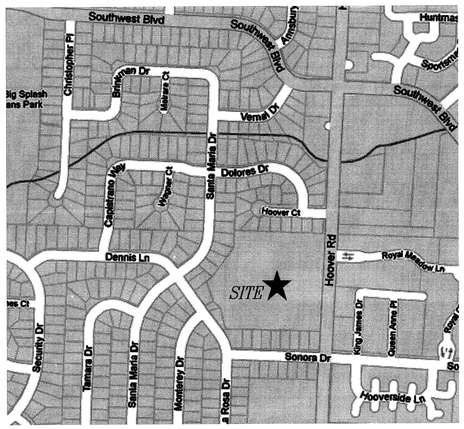

LOCATION MAP

LEGEND

STM	PROPOSED STORM PIPE
SAN	PROPOSED SANITARY PIPE
	PROPOSED WATER PIPE
CB	PROPOSED CATCH BASIN
MH	PROPOSED STORM MANHOLE
MH	PROPOSED SANITARY MANHOLE
	PROPOSED FIRE HYDRANT
DS	PROPOSED DOWNSPOUT
CO	PROPOSED CLEANOUT

EXISTING SYMBOLS

- CONCRETE MONUMENT FOUND
- 1/2" IRON PIN FOUND, 3/4" CAPPED IRON PIN SET
- 1" IRON PIPE FOUND
- NAIL SET
- BENCHMARK
- EX. UTILITY POLE
- EX. GUY WIRE
- UE — EX. UNDERGROUND ELECTRIC
- E — EX. OVERHEAD ELECTRIC
- EX. HVAC UNIT
- EX. TRANSFORMER
- EX. GROUND LIGHT
- EX. ELECTRIC BOX
- EX. LIGHT POLE
- UT — EX. UNDERGROUND TELEPHONE
- T — EX. OVERHEAD TELEPHONE
- EX. TELEPHONE MANHOLE
- EX. TELEPHONE PEDESTAL
- G — EX. GAS MAIN
- GV — EX. GAS VALVE
- UCATV — EX. UNDERGROUND CABLE TV
- W — EX. WATER MAIN
- EX. FIRE HYDRANT
- WV — EX. WATER VALVE
- WM — EX. WATER METER
- EX. IRRIGATION CONTROL VALVE
- EX. MANHOLE
- CO — EX. CLEAN OUT
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. CATCH BASIN
- EX. INLET
- YD — EX. YARD DRAIN
- DS — EX. DOWN SPOUT
- EX. TRAFFIC CONTROL CABINET
- TSC — EX. TRAFFIC SIGNAL POLE
- EX. SIGN
- GP — EX. GUARD POST (PIPE BOLLARD)
- FP — EX. FLAG POLE
- X — EX. FENCE
- EX. SOIL BORING
- EX. HARDWOOD TREE

PROPOSED SYMBOLS

- FIRE HYDRANT
- CB — PROPOSED CATCH BASIN
- MH — PROPOSED STORM MANHOLE
- MH — PROPOSED SANITARY MANHOLE/CLEANOUT
- PROPOSED CONCRETE PER DETAIL 4/C100
- PROPOSED ASPHALT PAVEMENT PER DETAIL 1/C100 OR 2/C100
- PROPOSED HEAVY DUTY CONCRETE PER DETAIL 3/C100

STORM SCHEDULE

100 GROVE CITY STANDARD ENDWALL
N 687163.80
E 1808677.99
INV=811.40 (24")

101 ODOT CB No. 2-4
N 687033.20
E 1808561.68
GRATE=814.75
INV IN=811.70 (24") W
INV IN=812.75 (12") NW
INV OUT=811.70 (24") NE

102 ODOT CB No. 2-2B
N 687148.28
E 1808421.93
GRATE=817.38
INV IN=814.71 (8") N
INV IN=814.71 (8") E
INV OUT=814.38 (12") SE

103 ODOT CB No. 2-2B
N 687033.20
E 1808336.86
GRATE=814.95
INV IN=812.70 (15") W
INV OUT=812.15 (24") E

104 ODOT MH No. 3
N 687055.04
E 1808271.15
GRATE=817.28
INV IN=814.20 (12") NW
INV OUT=814.20 (15") E

200 GROVE CITY STANDARD ENDWALL
N 687549.39
E 1808717.01
INV=809.45 (24")

201 ODOT CB No. 3 BC
N 687529.95
E 1808713.12
T/CURB=813.90
INV IN=809.56 (12") S
INV IN=809.56 (24") SW
INV OUT=809.51 (24") N

202 ODOT CB No. 2-3
N 687472.36
E 1808728.64
GRATE=812.25
INV IN=809.92 (12") S
INV OUT=809.87 (12") N

203 ODOT CB No. 2-3
N 687397.26
E 1808726.02
GRATE=812.25
INV OUT=810.25 (12") N

204 ODOT CB No. 2-3
N 687483.51
E 1808682.64
GRATE=816.60
INV IN=808.69 (36") S
INV IN=811.02 (8") W
INV OUT=809.69 (24") NE

205 ODOT CB No. 2-3
N 687301.03
E 1808677.25
GRATE=814.82
INV IN=812.01 (12") W
INV IN=810.56 (18") SE
INV OUT=808.69 (36") N

206 ODOT CB No. 2-3
N 687328.24
E 1808604.32
GRATE=815.63
INV IN=814.42 (12") NW
INV IN=814.70 (8") W
INV OUT=814.37 (12") E

207 YARD DRAIN
N 687373.01
E 1808567.72
GRATE=817.29
INV IN=815.04 (8") NE
INV OUT=814.79 (12") SE

208 ODOT CB No. 2-3
N 687249.87
E 1808709.33
GRATE=814.38
INV IN=810.77 (18") S
INV IN=811.89 (4") SE
INV OUT=810.72 (18") NW

209 ODOT CB No. 2-4
N 687194.11
E 1808694.74
GRATE=815.92
3 - 9"T x 36"W WINDOWS
WINDOWS INV=814.25 (W,S,E)
INV IN=810.97 (12") S
INV OUT=810.92 (18") N

210 GROVE CITY STANDARD ENDWALL
N 687182.22
E 1808695.06
INV=811.10 (12")

300 GROVE CITY STANDARD ENDWALL
N 687597.88
E 1808588.12
INV=811.01 (18")

301 ODOT CB No. 2-4
N 687489.86
E 1808308.59
GRATE=815.65
INV IN=812.30 (18") S
INV IN=812.80 (12") SE
INV OUT=812.30 (18") E

302 ODOT CB No. 2-2B
N 687385.96
E 1808385.12
GRATE=817.29
INV IN=814.39 (12") S
INV IN=814.39 (12") E
INV OUT=814.34 (12") NW

303 YARD DRAIN
N 687365.55
E 1808470.77
GRATE=818.00
INV IN=815.83 (8") N
INV OUT=815.50 (12") W

304 YARD DRAIN
N 687337.55
E 1808385.04
GRATE=817.10
INV IN=814.93 (8") E
INV OUT=814.60 (12") N

305 ODOT CB No. 2-2B
N 687301.86
E 1808308.59
GRATE=815.03
INV IN=813.28 (12") SE
INV OUT=812.78 (18") N

306 YARD DRAIN
N 687260.61
E 1808357.69
GRATE=817.00
INV IN=813.71 (12") SW
INV OUT=813.66 (12") NW

307 YARD DRAIN
N 687230.41
E 1808289.36
GRATE=816.25
INV OUT=814.00 (12") NE

401 ODOT CB No. 2-3
GRATE=814.17
N 687589.86
E 1808728.59
3-12"T X 24"W WINDOWS
INV IN=809.00 (18") NE
INV IN=809.00 (12") SW

402 GROVE CITY STANDARD ENDWALL
N 687573.64
E 1808720.09
INV OUT=809.05 (12") NE

SANITARY SCHEDULE

1 CLEANOUT
N 687563.58
E 1808376.36
RIM=816.89
INV IN=808.41 (8") S
INV OUT=808.41 (8") N

2 CLEANOUT
N 687482.42
E 1808376.36
RIM=818.17
INV IN=810.27 (8") S
INV OUT=810.27 (8") N

3 ODOT MH No. 3
N 687445.91
E 1808376.36
RIM=818.43
INV IN=813.44 (8") E
INV IN=811.95 (8") S
INV OUT=811.95 (8") N

4 CLEANOUT
N 687320.56
E 1808376.36
RIM=817.36
INV IN=814.32 (8") S
INV OUT=814.32 (8") N

5 CLEANOUT
N 687264.91
E 1808394.08
RIM=818.28
INV OUT=814.90 (8") N

SITE DATA

TOTAL ACREAGE OF SITE:	10.10 ACRES
DISTANCE TO NEAREST CROSS STREET: (SITE IS ADJACENT TO THE INTERSECTION OF HOOVER ROAD AND ROYAL MEADOW LANE)	0 FEET
TOTAL NUMBER OF PARKING SPACES:	142
NUMBER OF NEW STD. SPACES:	95
NUMBER OF NEW H.C. SPACES:	6
NUMBER OF EX. SPACES TO REMAIN:	41
BUILDING SQUARE FOOTAGE:	61,585 SF
CLASSROOM SQUARE FOOTAGE:	18,655 SF
DROP-OFF VEHICLE STACKING CAPACITY	45 VEHICLES

SITE PLAN NOTES:

1. SIDEWALK WITHIN RIGHT-OF-WAY THAT IS TO BE REMOVED AND REPLACED DUE TO UTILITY INSTALLATION OR ENTRANCE DRIVE CONSTRUCTION SHALL BE PER C-GC-46A.
2. PIPING WITHIN THE RIGHT-OF-WAY CONNECTING TO PUBLIC STORM SEWER SHALL BE INSTALLED WITH GRANULAR TYPE A BACKFILL PER C-GC-26.
3. PROPOSED DRIVE ENTRANCES WITHIN RIGHT-OF-WAY TO BE CONSTRUCTED PER C-GC-41B.
4. CURB AND GUTTER WITHIN RIGHT-OF-WAY AT PROPOSED DRIVE ENTRANCES ALONG HOOVER RD. TO BE REMOVED AND REPLACED PER C-GC-57B/C-GC-41A. SIDEWALKS CROSSING THE PREPAVED ENTRANCES SHALL BE ADA COMPLAINT PER C-GC-46.

ZONING

EXISTING ZONING: SD-1 EDUCATIONAL
PROPOSED ZONING: SD-1 EDUCATIONAL

UTILITY NOTES

1. PROPOSED WATER METER PIT SHALL HAVE A 2" DOMESTIC METER.
2. ALL ENDWALLS SHALL BE PER CITY OF GROVE CITY STANDARD DRAWING C-GC-23.
3. ALL HEADWALLS SHALL HAVE STONE FACING CONSISTING OF NORTH SHORE BUFF LIMESTONE PER CITY OF GROVE CITY REQUIREMENTS.
4. SITE IS NOT WITHIN THE 100-YEAR FLOODPLAIN ACCORDING TO FEMA MAP NO. 39049C0314K.
5. ALL WATERMAIN CROSSINGS SHALL MAINTAIN A VERTICAL SEPARATION OF 18" MINIMUM. SANITARY SEWER SHALL BE LOCATED A MINIMUM OF 18" BELOW WATERMAIN AT ALL CROSSINGS.

STATE OF OHIO
MICHAEL COUVREUR
E-70851
REGISTERED PROFESSIONAL ENGINEER

0 15 30 45
SCALE: 1"=30'

OHIO Utilities Protection SERVICE
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City Administrator _____
Service Director _____
Review for the City of Grove City Jackson _____
Township Fire Department _____

DEVELOPMENT PLAN
CITY PROJECT NO._____

MONTEREY ELEMENTARY SCHOOL
2584 Dennis Lane, Grove City, Ohio 43123

SOUTH-WESTERN CITY SCHOOL DISTRICT
3805 Marlane Drive, Grove City, OH 43123

SITE PLAN
DATE 12/21/12
C110

GRADING LEGEND

- 605 — EX CONTOUR
- 604 — EX CONTOUR
- 605 — PROPOSED CONTOUR
- 604 — PROPOSED CONTOUR

EROSION CONTROL LEGEND

- DB — DANDY BAG
- BD — BEAVER DAM
- SF — SILT FENCE
- TP — TREE PROTECTION
- CONSTRUCTION ENTRANCE DETAIL, SEE DETAIL SHEET C112
- CWO — CONCRETE WASHOUT DETAIL, SEE DETAIL SHEET C112

BROOK PARK SECTION 2
PB 50 PG 4

MONTEREY PARK NO. 3
PB 36 PG 2

PARK NO. 2
4 PG 2

RESUBDIVISION OF PART OF
MONTEREY PARK NO. 3
(LOTS 267 THRU 275 INCLUSIVE)

PROPOSED BUILDING
FF=819.00

DENNIS LANE
(50' R/W & 23' PVMT WIDTH)

LA ROSA DRIVE
(50' R/W & 23' PVMT WIDTH)

MONTEREY DRIVE
(50 R/W)

HOOVER ROAD
(R/W VARIES, 33' PVMT WIDTH)

218 219 220 221 222 223 63

8 7 6 5 4 3 2 1

SAN MH
RIM=816.31'
INV=806.92'

CATCH BASIN
GRATE=814.21'
INV S=811.21'
INV E=811.06'

CATCH BASIN
GRATE=813.68'
INV W=808.60'
INV N=808.55'

SAN MH
RIM=815.72'
INV SW=807.62'
INV E=806.38'

SAN MH
RIM=812.33'
INV N=806.54'

CATCH BASIN
GRATE=816.44'
INV=813.16'

STM MH
RIM=818.46'
INV NE=814.39'
INV SE=812.03'
INV NW=811.46'

STM MH
RIM=818.46'
INV SE=813.47'
INV NW=812.69'
INV SW=812.67'

SAN MH
RIM=818.29'
INV=809.82'

SAN MH
RIM=818.46'
INV SE=810.43'
INV SW=810.17'
INV NW=810.11'

SAN MH
RIM=818.28'
INV SE=809.34'
INV SW=809.34'
INVo NE=809.35'

20' EASEMENT

2 1/2" PER RECORD

6" APPROX. LOCATION

0 15 30 45
SCALE: 1"=30'

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City Administrator
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DEVELOPMENT PLAN
CITY PROJECT NO.

MONTEREY ELEMENTARY SCHOOL
2584 Dennis Lane, Grove City, Ohio 43123

SOUTH-WESTERN CITY SCHOOL DISTRICT
3805 Marlane Drive, Grove City, OH 43123

GRADING AND EROSION CONTROL PLAN

DATE 12/21/12

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1. DESCRIPTION OF CONSTRUCTION:

NEW ELEMENTARY SCHOOL IN GROVE CITY, FRANKLIN COUNTY, OHIO, INCLUDING THE SCHOOL BUILDING, BALL FIELDS, PARKING LOTS, SANITARY SEWERS, STORM SEWERS, WATERLINES AND OTHER RELATED UTILITIES. SOIL DISTURBING ACTIVITIES WILL INCLUDE: CLEARING AND GRUBBING INSTALLATION OF EROSION AND SEDIMENT CONTROLS, GRADING, INSTALLATION OF THE SEWERS AND OTHER UTILITIES AND THE PREPARATION FOR FINAL SEEDING.

2. AREA AFFECTED BY CONSTRUCTION:

APPROXIMATELY 7.63 ACRES

3. RUNOFF COEFFICIENTS:

PRE: C = 0.95 FOR BUILDINGS AND PAVEMENT, 0.40 FOR OTHER AREAS.

POST: C = 0.95 FOR BUILDINGS AND PAVEMENT, 0.40 FOR OTHER AREAS.

4. ESTIMATE OF THE IMPERVIOUS AREA CREATED BY THE CONSTRUCTION ACTIVITY:

APPROXIMATELY 3.3 ACRES

5. EXISTING SOIL DATA:

CsA – CROSBY-URBAN COMPLEX, 0 TO 2 PERCENT SLOPES
CsB – CROSBY-URBAN COMPLEX, 2 TO 6 PERCENT SLOPES

6. RECEIVING WATERS:

UNNAMED TRIBUTARY TO SCIOTO RIVER

7. POTENTIAL POLLUTION SOURCES:

THE MAIN POSSIBLE SOURCE OF POLLUTION WOULD COME FROM ANY OF THE SOIL DISTURBING ACTIVITIES DESCRIBED IN ITEM NO. 1

8. PROJECT SCHEDULE AND SEQUENCE:

BEGIN: 06-01-2013
END: 09-01-2014

1. INSTALL SEDIMENT AND EROSION CONTROLS, INCLUDING TEMPORARY SEDIMENTATION BASINS.
2. DEMOLISH EXISTING PAVEMENT AND SIDEWALK.
3. CONSTRUCT SANITARY SEWER, LIMIT DISTURBANCE TO AREA REQUIRED FOR CONSTRUCTION.
4. CONSTRUCT WATER SERVICE PER CITY STANDARD SEQUENCE.
5. CONSTRUCT STORM SEWER. INSTALL INLET PROTECTION AS SEWERS ARE CONSTRUCTED.
6. BEGIN ROUGH GRADING SITE.
7. FINISH REMAINING SITE WORK. STABILIZE SITE WITH ASPHALT PAVING AND CONCRETE SIDEWALK.
8. ONCE SITE IS STABILIZED, REMOVE REMAINING EROSION AND SEDIMENT CONTROLS.

9. CONTROL MEASURES FOR STORM WATER RUNOFF, EROSION AND SEDIMENT:

STABILIZATION OF DENUDED AREAS AND SOIL STOCKPILES

TEMPORARY SEEDING AND/OR MULCHING STABILIZATION SHALL BE PROVIDED PER OEPA GUIDELINES AS SET FORTH IN PART III.G.2 OF OHIO PERMIT NO.: OHC000003 (SEE TABLE 1)

TABLE 1: TEMPORARY STABILIZATION

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITH 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 21 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 21 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER

PERMANENT SEEDING AND MULCHING STABILIZATION SHALL BE PROVIDED PER OEPA GUIDELINES AS SET FORTH IN PART III.G.2 OF OHIO EPA PERMIT NO.: OHC000003. (SEE TABLE 2)

TABLE 2: PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

PROTECTION OF ADJACENT PROPERTIES

PROPERTIES ADJACENT TO THE SITE OF LAND DISTURBANCE WILL BE PROTECTED FROM SEDIMENT DEPOSITION. THIS WILL BE ACCOMPLISHED BY PRESERVING A WELL VEGETATED BUFFER STRIP AROUND THE LOWER PERIMETER OF LAND DISTURBANCE, BY INSTALLING PERIMETER CONTROLS SUCH AS SEDIMENT TRAPS, FILTERS OR DIKES, OR SEDIMENT BASINS, OR BY A COMBINATION OF SUCH MEASURES. VEGETATED FILTER STRIPS MAY BE USED ALONE ONLY WHERE RUNOFF IN SHEET FLOW IS EXPECTED. FILTER STRIPS SHOULD BE AT LEAST 15 FEET IN WIDTH. IF AT ANY TIME IT IS FOUND THAT A VEGETATED FILTER STRIP ALONE IS INEFFECTIVE IN STOPPING SEDIMENT MOVEMENT INTO ADJACENT PROPERTY, ADDITIONAL PERIMETER CONTROLS MUST BE PROVIDED.

TIMING AND STABILIZATION OF SEDIMENT TRAPPING MEASURES

SEDIMENT BASINS, DIVERSIONS, SEDIMENT TRAPS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT ON-SITE WILL BE CONSTRUCTED AS A FIRST STEP IN GRADING AND BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS WILL BE SEEDED AND MULCHED AFTER INSTALLATION.

SEDIMENT BASINS

STORM WATER RUNOFF CONTAINING DAMAGING AMOUNTS OF SEDIMENT SHALL PASS THROUGH A SEDIMENT BASIN OR OTHER SUITABLE SEDIMENT TRAPPING FACILITY.

CUT AND FILL SLOPES

CUT AND FILL SLOPES WILL BE DESIGNED AND CONSTRUCTED IN A MANNER WHICH WILL MINIMIZE EROSION. SLOPES WHICH ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF CONSTRUCTION WILL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

STORM WATER MANAGEMENT

CONCENTRATED STORM WATER RUNOFF LEAVING THE SITE WILL BE DISCHARGED DIRECTLY INTO A WELL DEFINED ADEQUATELY PROTECTED NATURAL OR MAN-MADE OFF SITE RECEIVING CHANNEL OR PIPE. IF NO OFF SITE CHANNEL OR PIPE EXISTS, THE STORM WATER WILL BE DETAINED ON SITE IN A SUITABLE RETENTION/DETENTION FACILITY.

STABILIZATION OF WATERWAYS AND OUTLETS

ALL ON SITE STORM WATER CONVEYANCE CHANNELS WILL BE DESIGNED AND CONSTRUCTED TO WITHSTAND THE EXPECTED VELOCITY OF FLOW FROM A 10 YEAR FREQUENCY STORM WITHOUT EROSION. DESIGN FOR A LARGER EVENT MAY BE NECESSARY FOR PROTECTION FROM THE STORM WATER FLOW. STABILIZATION ADEQUATE TO PREVENT EROSION WILL ALSO BE PROVIDED AT THE OUTLETS OF ALL PIPES AND PAVED CHANNELS.

SILT FENCE (SF)

IF DEEMED NECESSARY DURING CONSTRUCTION, SILT FENCE SHALL BE INSTALLED IN AREAS OF DIRECT OFFSITE SHEET FLOW DRAINAGE. OBVIOUS UPLAND AREAS WILL NOT BE FENCED. SILT FENCING MAY ALSO BE USED TO PROTECT THE PROJECT FROM OFFSITE STORM WATER DRAINAGE THAT MAY HARM THE INTEGRITY OF THIS CONSTRUCTION PROJECT. INSTALLATION SHALL BE IN ACCORDANCE WITH THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK.

STORM SEWER INLET PROTECTION

ALL STORM SEWER INLETS WHICH ARE MADE OPERABLE DURING CONSTRUCTION WILL BE PROTECTED SO THAT SEDIMENT-LADEN WATER WILL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

STOCKPILE

SILT FENCING SHALL BE INSTALLED AROUND TEMPORARY SPOIL STOCKPILES. THESE STOCKPILES SHALL BE STRAW MULCHED AND OR TEMPORARILY SEEDED WITHIN 7 WORKING DAYS IF LEFT DORMANT FOR 21 DAYS OR LONGER.

MULCHING

1. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:

- STRAW – STRAW SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/AC. OR 90 LB./1,000 SQ. FT. (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ.FT. SECTIONS AND PLACE TWO 45-LB. BALES OF STRAW IN EACH SECTION.
- HYDROSEEDERS – WOOD CELLULOSE FIBER SHOULD BE USED AT 2,000 LB./AC. OR 46 LB./1,000 SQ. FT.
- OTHER – ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS AND ROLLED EROSION CONTROL PRODUCTS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD MULCH/CHIPS APPLIED AT 10-20 TONS/AC.

2. MULCH ANCHORING – MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH.

- MECHANICAL – USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 INCHES.
- MULCH NETTINGS – USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING REQUIREMENTS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
- SYNTHETIC BINDERS – FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. ALL APPLICATIONS OF SYTHETIC BINDERS MUST BE CONDUCTED IN SUCH A MANNER WHERE THERE IS NO CONTACT WITH WATERS OF THE STATE.
- WOOD CELLULOSE FIBER – WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB./ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB./100 GAL. OF WOOD CELLULOSE FIBER.

SOIL PROTECTION CHART
ALL SEEDING ITEMS ARE COVERED UNDER ODOT SPECIFICATIONS.

STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING			+									
DORMENT SEEDING	+									+		
TEMPORARY SEEDING			+									
MULCHING	+											

STABILIZED CONSTRUCTION ENTRANCE (SCE)

A SCE SHALL BE CONSTRUCTED AT ALL LOCATIONS SHOWN ON THE PLANS. THE SCE SHALL BE CLEANED OR REFRESHED (STIRRED UP TO SETTLE THE FINES OUT) AS NECESSARY TO KEEP THEM IN WORKING ORDER. THE #2 STONE, OR LARGER, WILL FLEX TRUCK AND EQUIPMENT TIRES SUFFICIENTLY TO REMOVE DIRT FROM TREADS AND SIDEWALLS PRIOR TO ENTERING OPEN PUBLIC ROADWAYS.

STREET SWEEPING SHALL OCCUR SIMULTANEOUSLY WITH CONSTRUCTION ACTIVITIES.

MATERIAL STORAGE AREAS

MATERIAL LAY DOWN AREAS SHALL BE TOPPED WITH NON-ERODABLE MATERIAL AND BE KEPT CLEAR OF TRASH. EMPTY OIL & GREASE CONTAINERS SHALL BE PROPERLY DISPOSED OF IMMEDIATELY. NO ONSITE FUEL, CHEMICALS, OR OIL STORAGE WILL BE UTILIZED ON THIS PROJECT. FUEL AND OIL SHALL BE DELIVERED TO THE PROJECT ON AN AS NEEDED BASIS.

VEHICLE MAINTENANCE AND FUELING

VEHICLE MAINTENANCE SHALL BE CONFINED TO A DESIGNATED VEHICLE MAINTENANCE AREA AS INDICATED ON THE PLAN SHEETS. THE AREA SHALL HAVE A NON-ERODABLE SURFACE AND SHALL BE LOCATED IN OR ADJACENT TO THE MATERIAL LAY DOWN AREA.

DURING FUELING OPERATIONS, THE APPROPRIATE SPILL CONTAINMENT SHALL BE READILY AVAILABLE. THE FUEL TRUCK SHALL NOT BE LEFT UNATTENDED DURING FUELING OPERATIONS AND SHOULD NOT BE STORED ON SITE.

SPILL PREVENTION AND REPORTING

EMERGENCY SPILL KITS SHALL BE KEPT IN FOREMAN VEHICLES AT ALL TIMES FOR EASE OF ACCESS IN AN EMERGENCY. THE KIT SHALL BE KEPT IN OR AROUND THE ONSITE JOB TRAILER, SEE SWPPP PLAN FOR LOCATION. THE CONTRACTOR IS RESPONSIBLE FOR SELF-REPORTING KNOWN VIOLATIONS OF AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES TO THE FRANKLIN COUNTY ENGINEERS OFFICE, OR IT REPRESENTATIVES AND THE OEPA.

FUGITIVE DUST CONTROL

DURING DRY PERIODS, A WATER TRUCK SHALL BE KEPT ON SITE TO CONTROL FUGITIVE DUST.

DISPOSAL OF SOLID, SANITARY AND TOXIC WASTE

SOLID, SANITARY AND TOXIC WASTE MUST BE DISPOSED OF IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IT IS PROHIBITED TO BURN, BURY OR POUR ONTO THE GROUND OR INTO STORM SEWERS ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS AND OTHER SUCH TOXIC OR HAZARDOUS WASTES. WASH OUT OF CEMENT TRUCKS SHOULD OCCUR IN DIKED AREAS AWAY FROM ANY DRAINAGE CHANNELS. THE DIKED AREA SHOULD HOLD A VOLUME 110% OF THE LARGEST TANK.

CONSTRUCTION ACCESS ROUTES AND PARKING AREAS

WHENEVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS WILL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) BY RUNOFF OR VEHICLE TRACKING ONTO THE PAVED SURFACE. TEMPORARY CONSTRUCTION ROADS WILL FOLLOW THE CONTOUR OF THE NATURAL TERRAIN TO THE EXTENT POSSIBLE. SLOPES SHOULD NOT EXCEED 10 PERCENT. ROADBEDS SHALL BE AT LEAST 14 FEET WIDE FOR ONE-WAY TRAFFIC AND 20 FEET WIDE FOR TWO-WAY TRAFFIC. TEMPORARY PARKING AREAS WILL BE LOCATED ON NATURALLY FLAT AREAS WHENEVER POSSIBLE TO MINIMIZE GRADING. GRADES FOR SAID PARKING AREAS SHOULD BE SUFFICIENT TO PROVIDE DRAINAGE BUT NOT EXCEED 4 PERCENT SLOPE. BOTH TEMPORARY AND PERMANENT ROADS AND PARKING AREAS MAY REQUIRE PERIODIC TOP DRESSING WITH NEW GRAVEL. SEEDED AREAS ADJACENT TO ROADS AND PARKING AREAS WILL BE CHECKED PERIODICALLY TO ENSURE THAT A VIGOROUS STAND OF VEGETATION IS MAINTAINED.

NO CONSTRUCTION TRAFFIC WILL ENTER PUBLIC ROADS DIRECTLY FROM THE SITE EXCEPT THROUGH TEMPORARY OR PERMANENT PAVED ACCESS. ALL VEHICLES AND TIRES SHALL BE CLEANED OF MUD PRIOR TO ENTERING THE PUBLIC ROADS.

STABILIZED CONSTRUCTION ENTRANCE (SCE)

A SCE SHALL BE CONSTRUCTED AT ALL LOCATIONS SHOWN ON THE PLANS. THE SCE SHALL BE CLEANED OR REFRESHED (STIRRED UP TO SETTLE THE FINES OUT) AS NECESSARY TO KEEP THEM IN WORKING ORDER. THE #2 STONE, OR LARGER, WILL FLEX TRUCK AND EQUIPMENT TIRES SUFFICIENTLY TO REMOVE DIRT FROM TREADS AND SIDEWALLS PRIOR TO ENTERING OPEN PUBLIC ROADWAYS.

STREET SWEEPING SHALL OCCUR SIMULTANEOUSLY WITH CONSTRUCTION ACTIVITIES.

MATERIAL STORAGE AREAS

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VEHICLE MAINTENANCE AND FUELING

VEHICLE MAINTENANCE SHALL BE CONFINED TO A DESIGNATED VEHICLE MAINTENANCE AREA AS INDICATED ON THE PLAN SHEETS. THE AREA SHALL HAVE A NON-ERODABLE SURFACE AND SHALL BE LOCATED IN OR ADJACENT TO THE MATERIAL LAY DOWN AREA.

DURING FUELING OPERATIONS, THE APPROPRIATE SPILL CONTAINMENT SHALL BE READILY AVAILABLE. THE FUEL TRUCK SHALL NOT BE LEFT UNATTENDED DURING FUELING OPERATIONS AND SHOULD NOT BE STORED ON SITE.

SPILL PREVENTION AND REPORTING

EMERGENCY SPILL KITS SHALL BE KEPT IN FOREMAN VEHICLES AT ALL TIMES FOR EASE OF ACCESS IN AN EMERGENCY. THE KIT SHALL BE KEPT IN OR AROUND THE ONSITE JOB TRAILER, SEE SWPPP PLAN FOR LOCATION. THE CONTRACTOR IS RESPONSIBLE FOR SELF-REPORTING KNOWN VIOLATIONS OF AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NPDES TO THE DELAWARE COUNTY ENGINEERS OFFICE, OR IT REPRESENTATIVES AND THE OEPA.

DISPOSAL OF TEMPORARY MEASURES

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE DISPOSED OF AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE DISPOSAL OF TEMPORARY MEASURES WILL BE PERMANENTLY STABILIZED TO PREVENT EROSION AND SEDIMENTATION.

MAINTENANCE

ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES WILL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.

INSPECTIONS

THE NPDES PERMIT REQUIRES THAT SEDIMENT AND EROSION CONTROLS BE INSPECTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF 0.5" OR GREATER RAINFALL. A WRITTEN LOG OF THESE INSPECTIONS MUST BECOME PART OF THE SWP3. THIS LOG SHOULD INDICATE THE DATES OF THE INSPECTIONS, NAME OF THE INSPECTOR, WEATHER CONDITIONS, OBSERVATIONS, ACTIONS TAKEN TO CORRECT ANY PROBLEMS AND THE DATE THE ACTION WAS TAKEN.

10. VEGETATIVE PRACTICES

THE FOLLOWING CHART APPLIES WHEN ESTABLISHING TEMPORARY SEEDINGS.

TEMPORARY SEEDING & MULCHING FOR EROSION CONTROL

SEEDING DATES	SPECIES	LB/1,000SF	LB/AC
MARCH 1 TO AUGUST 15	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	128 40 40
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 40 40
	ANNUAL RYEGRASS PERENNIAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	1.25 3.25 0.4 0.4	55 142 17 17
	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	128 40 40
AUGUST 16 TO NOVEMBER 1	RYE TALL FESCUE ANNUAL RYEGRASS	3 1 1	112 40 40
	WHEAT TALL FESCUE ANNUAL RYEGRASS	3 1 1	120 40 40
	PERENNIAL RYE TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 40 40
	ANNUAL RYEGRASS PERENNIAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	1.25 3.25 0.4 0.4	40 40 40
NOVEMBER 1 TO FEBRUARY 29	USE MULCH ONLY OR DORMANT SEEDING		

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED

1. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.

2. SEEDING METHOD – SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

THE FOLLOWING CHART APPLIES WHEN ESTABLISHING PERMANENT SEEDINGS.

PERMANENT SEEDING & MULCHING FOR EROSION CONTROL

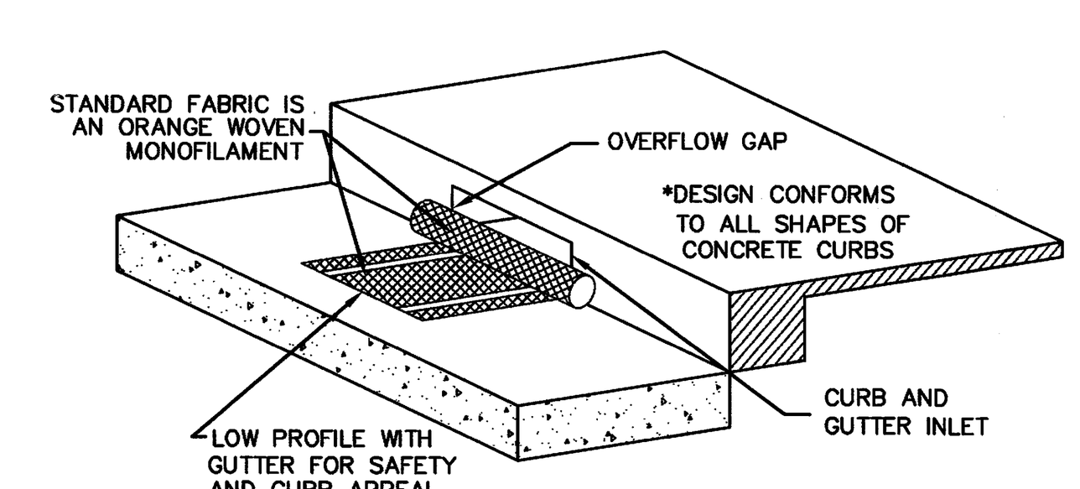
SEED MIX	SEEDING RATE LBS/AC	SEEDING RATE LBS/1,000SF	NOTES:
GENERAL USE			
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20-40 10-20 20-40	1/2-1 1/4-1/2 1/2-1	FOR CLOSE MOWING & FOR WATERWAYS WITH <2.0 FT/SEC VELOCITY
TALL FESCUE	40-50	1-1 1/4	
TURF-TYPE FESCUE	90	2 1/4	
STEEP BANKS OR CUT SLOPES			
TALL FESCUE	40-50	1-1 1/4	
CROWN VETCH TALL FESCUE	10-20 20-30	1/4-1/2 1/2-3/4	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20-25 20-30	1/2-3/4 1/2-3/4	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES			
TALL FESCUE	40-50	1-1 1/4	
TURF-TYPE FESCUE KENTUCKY BLUEGRASS	90 5	2 1/4 0.1	
LAWNS			
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100-120	2 2	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100-120	2 1-1/2	FOR SHADED AREAS

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED, REFER TO PROJECT SPECIFICATIONS.

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE SPECIFIED DATES, ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION.

11. FINAL SITE STABILIZATION

FINAL SITE STABILIZATION IS CONSIDERED ACHIEVED ONCE ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES ARE REMOVED AND DISPOSED OF AND ALL TRAPPED SEDIMENT HAS BEEN PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION.



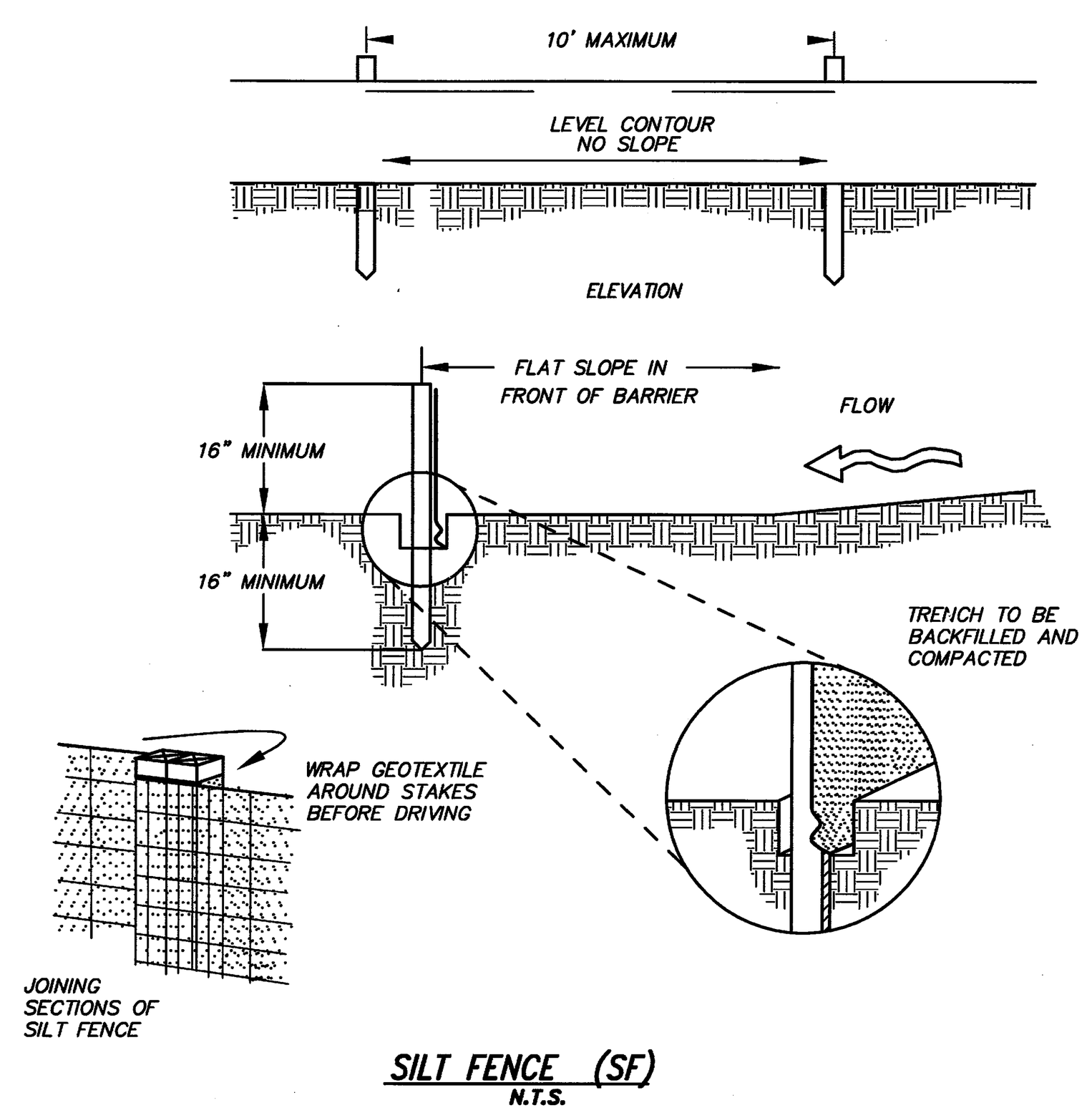
INSTALLATION AND MAINTENANCE GUIDELINES

INSTALLATION: THE EMPTY BEAVER DAM® * SHOULD BE PLACED OVER THE GRATE AS THE GRATE STANDS ON END. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW ON POUCH, ON THE BOTTOM (BELOW-GRADE SIDE) OF THE UNIT. ATTACH ABSORBENT PILLOW TO TETHER LOOP. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME (STREET SIDE FIRST), THEN LOWER BACK EDGE WITH DAM INTO PLACE. THE BEAVER DAM® * SHOULD BE PARTIALLY BLOCKING THE CURB HOOD WHEN INSTALLED PROPERLY.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT. REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA OF THE BEAVER DAM® * AS NEEDED. IF USING OPTIONAL OIL ABSORBENTS; REMOVE AND REPLACE ABSORBENT PILLOW WHEN NEAR SATURATION.

*GUTTERGATOR®, SWP-CI BIG RED® OR APPROVED EQUAL MAY BE USED IN LIEU OF BEAVER DAM®.

DANDY PRODUCTS
BEAVER DAM DETAIL (BD)
N.T.S.



SILT FENCE (SF)
N.T.S.

NOTES:

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
4. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 IN. ABOVE THE ORIGINAL GROUND SURFACE.
7. THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 IN. DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE. A MINIMUM OF 8 IN. OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-IN.-DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE FABRIC.
9. SEAMS BETWEEN SECTION OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6 IN. OVERLAP PRIOR TO DRIVING INTO THE GROUND, (SEE DETAIL).
10. MAINTENANCE--SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER THE FABRIC OR AROUND THE FENCE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW DISCHARGE, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.

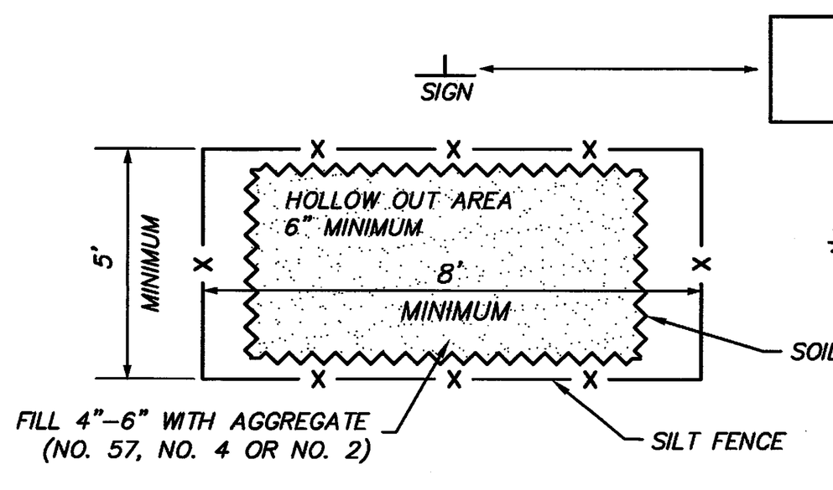
CRITERIA FOR SILT FENCE MATERIALS

1. FENCE POSTS--THE LENGTH SHALL BE A MINIMUM OF 32 IN. LONG. WOOD POSTS WILL BE 2-BY-2-IN. NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHOULD BE FREE OF KNOTS, SPLITS, AND OTHER VISIBLE IMPERFECTIONS, THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM OF 16 IN. INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.
2. SILT FENCE FABRIC SHALL BE ODOT TYPE C GEOTEXTILE FABRIC OR AS DESCRIBED IN THE CHART BELOW:

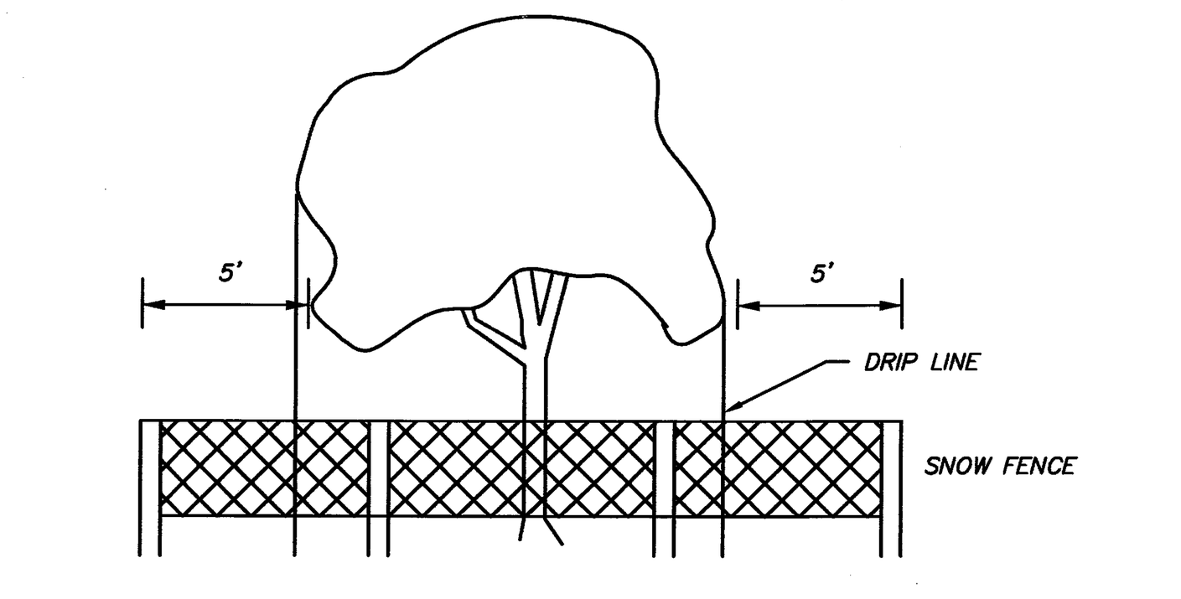
FABRIC PROPERTIES AND TESTING METHOD

MINIMUM TENSILE STRENGTH	120 LBS, ASTM D 4632
MAXIMUM ELONGATION AT 60 LBS	50%, ASTM D 4632
MINIMUM PUNCTURE STRENGTH	50 LBS, ASTM D 4833
MINIMUM TEAR STRENGTH	40 LBS, ASTM D 4533
APPARENT OPENING SIZE	≤ 0.84MM, ASTM D 4751
MINIMUM PERMITTIVITY	$1X10^{2}$ SEC^{-1}, ASTM D 4491
ULTRAVIOLET EXPOSURE STRENGTH RETENTION	70%, ASTM G 4355

* STRAW WATTLES MAY BE USED INSTEAD OF SILT FENCE.



CONCRETE WASHOUT AREA
N.T.S.

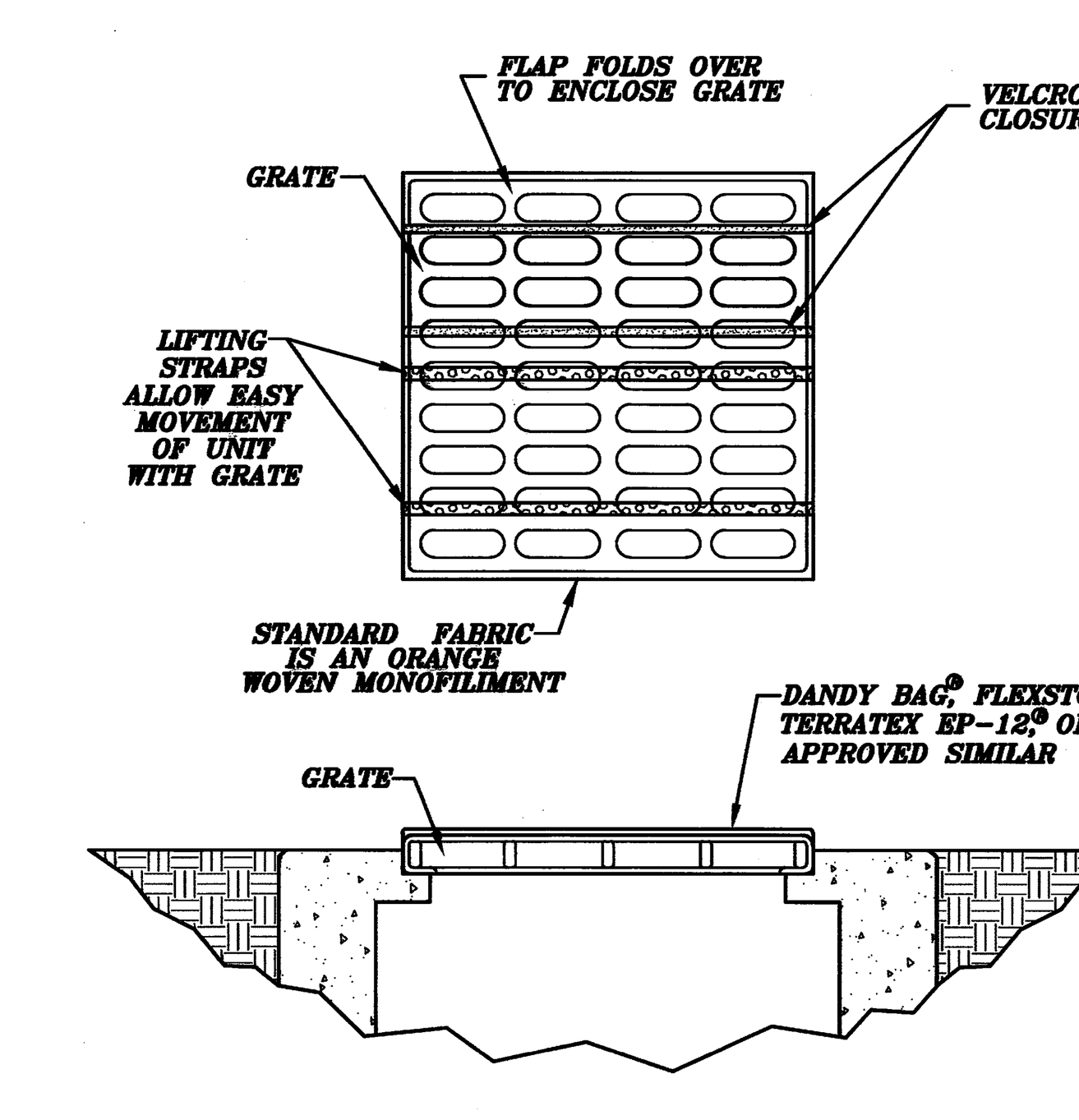


PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND AND VEGETATION TO BE LEFT STANDING.

PROTECTION OF EXISTING TREES AND VEGETATION
N.T.S.

NOTES:

1. SIGNAGE SHALL CLEARLY IDENTIFY THE TREE AND NATURAL PRESERVATION AREA AND STATE THAT NO CLEARING OR EQUIPMENT IS ALLOWED WITHIN IT.
2. TREE AND NATURAL PRESERVATION AREA SHALL BE FENCED PRIOR TO BEGINNING CLEARING OPERATIONS.
3. FENCE MATERIALS SHALL BE METAL FENCE POSTS WITH SNOW FENCE.
4. FENCE SHALL BE PLACED AS SHOWN ON PLANS AND BEYOND THE DRIP LINE OR CANOPY OF TREES TO BE PROTECTED.
5. IF ANY CLEARING IS DONE AROUND SPECIMEN TREES IT SHALL BE DONE BY CUTTING AT GROUND LEVEL WITH HAND HELD TOOLS AND SHALL NOT BE GRUBBED OR PULLED OUT. NO CLEARING SHALL BE DONE IN BUFFER STRIPS OR OTHER PRESERVED FORESTED AREAS.
6. NO FILLING OR STOCKPILING OF MATERIALS SHALL OCCUR WITHIN THE TREE PROTECTION AREA, INCLUDING DEPOSITION OF SEDIMENT.
7. WHERE UTILITIES MUST RUN THROUGH A TREE'S DRIP LINE, TUNNELING SHOULD BE USED TO MINIMIZE ROOT DAMAGE. TUNNELING SHOULD BE AT A MINIMUM DEPTH OF 24 INCHES FOR TREES LESS THAN 12 INCHES IN DIAMETER OR AT A MINIMUM DEPTH OF 36 INCHES FOR LARGER DIAMETER TREES.
8. WHERE TUNNELING WILL BE PERFORMED WITHIN THE DRIP LINE OF A TREE, THE TUNNEL SHOULD BE PLACED A MINIMUM OF 2 FEET AWAY FROM THE TREE TRUNK TO AVOID TAPROOTS.
9. MINIMIZE EXCAVATION OR TRENCHING WITHIN THE DRIP LINE OF THE TREE. ROUTE TRENCHES AROUND THE DRIP LINE OF TREES.
10. ROOTS 2 INCHES OR LARGER THAT ARE SEVERED BY TRENCHING SHOULD BE SAWN OFF NEATLY IN ORDER TO ENCOURAGE NEW GROWTH AND DISCOURAGE DECAY.
11. SOIL EXCAVATED DURING TRENCHING SHALL BE PILED ON THE SIDE AWAY FROM THE TREE.
12. ROOTS SHALL BE KEPT MOIST WHILE TRENCHES ARE OPEN AND REFILLED IMMEDIATELY AFTER UTILITIES ARE INSTALLED OR REPAIRED.
13. ARBORIST TO DELINEATE DRIP LINE OF TREES TO REMAIN, TO PROTECT WITH FENCING. DO NOT ALLOW WATER PONDING WITHIN DRIP LINE.



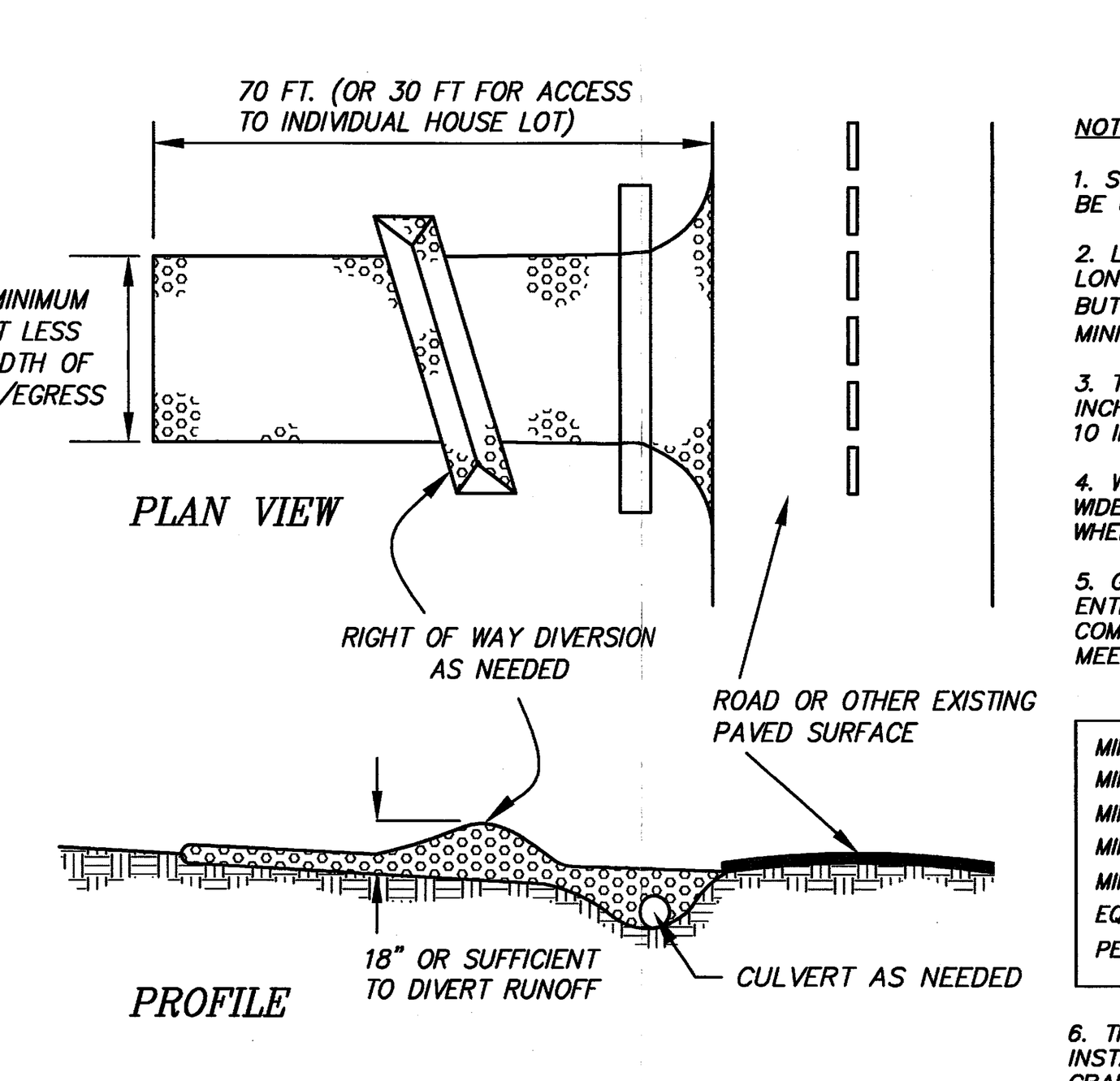
DANDY BAG®*
N.T.S.

INSTALLATION AND MAINTENANCE GUIDELINES

INSTALLATION: THE EMPTY DANDY BAG®* SHOULD BE PLACED OVER THE GRATE AS THE GRATE STANDS ON END. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN POUCH, ON THE BOTTOM (BELOW-GRADE SIDE) OF THE UNIT. ATTACH ABSORBENT PILLOW TO TETHER LOOP. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT. REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA OF THE DANDY BAG®* AS NEEDED. IF USING OPTIONAL OIL ABSORBENTS; REMOVE AND REPLACE ABSORBENT PILLOW WHEN NEAR SATURATION.

*FLEXSTORM®, TERRATEX EP-12® OR APPROVED EQUAL MAY BE USED IN LIEU OF DANDY BAG®.



NOTES

1. STONE SIZE – ODOT #2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.

2. LENGTH – THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).

3. THICKNESS – THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.

4. WIDTH – THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

5. GEOTEXTILE – A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE ARE PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

MINIMUM TENSILE STRENGTH	200 LBS
MINIMUM PUNCTURE STRENGTH	80 LBS
MINIMUM TEAR STRENGTH	50 LBS
MINIMUM BURST STRENGTH	320 PSI
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS< 0.6MM
PERMITTIVITY	$1X10^{-3}$ CM/SEC

6. TIMING – THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.

7. CULVERT – A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEED ED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.

8. WATER BAR – A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.

9. MAINTENANCE – TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVE IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.

10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION-SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

11. REMOVAL – THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.

CONSTRUCTION ENTRANCE
N.T.S.

SHP
LEADING DESIGN

4805 Montgomery Road, Cincinnati, Ohio 45212 — Suite 400, 513-381-2112
236 High Street, Hamilton, Ohio 45011 — 513-863-5441
250 Civic Center Drive, Columbus, Ohio 43215 — Suite 200, 614-223-2124
1675 Broadway, Denver, Colorado 80202 — Suite 1300, 303-209-7866

City Administrator ____________
Service Director ____________
Review for the City of Grove City Jackson ____________
Township Fire Department ____________

DEVELOPMENT PLAN
CITY PROJECT NO.____________
MONTEREY ELEMENTARY SCHOOL
2584 Dennis Lane, Grove City, Ohio 43123
SOUTH-WESTERN CITY SCHOOL DISTRICT
3805 Marlane Drive, Grove City, OH 43123

EROSION CONTROL NOTES & DETAILS
DATE 12/21/12
C112

1 Revised Plantings at Entrance
Scale: 1" = 30 ft

Exhibit "C" - 3 pages

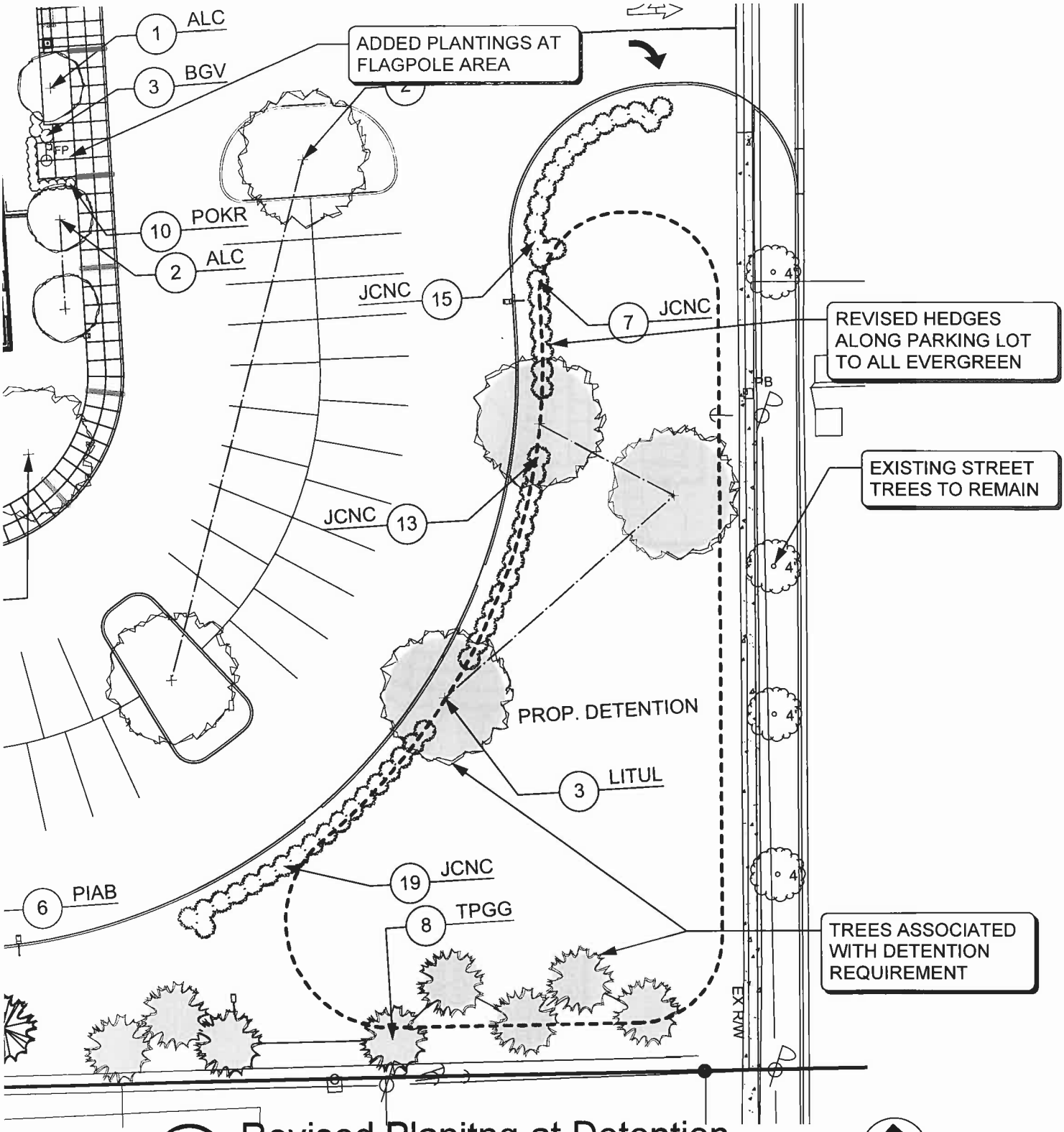
DATE:	17 JAN 2013
COMM NO.	2012014.03
RLP-1	

SOUTH-WESTERN CITY SCHOOL DISTRICT
MONTEREY ELEMENTARY SCHOOL
2584 Dennis Lane, Grove City, Ohio 43123

SOUTH-WESTERN CITY SCHOOL DISTRICT
3805 Marlane Drive, Grove City, OH 43123

SHP
LEADING DESIGN
4805 Montgomery Road Suite 400
Cincinnati, Ohio 45212 513.381.2112
82 Williams Avenue
Hamilton, Ohio 45015 513.861.5441
250 Civic Center Drive Suite 200
Columbus, Ohio 43215 614.223.2124
www.shp.com

STATE OF OHIO
Edward J. Steed
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION



1 Revised Planitng at Detention

Scale: 1" = 30 ft

DATE:	16 JAN 2013
COMM NO.	2012014.03
	RLP-2

SOUTH-WESTERN CITY SCHOOL DISTRICT
MONTEREY ELEMENTARY SCHOOL
2584 Dennis Lane, Grove City, Ohio 43123

SOUTH-WESTERN CITY SCHOOL DISTRICT
3805 Mariane Drive, Grove City, OH 43123

SHP LEADING DESIGN

4805 Montgomery Road Suite 400
Cincinnati, Ohio 45212 513.381.2112

82 Williams Avenue
Hamilton, Ohio 45015 513.861.5441

250 Civic Center Drive Suite 200
Columbus, Ohio 43215 614.223.2124

www.shp.com

REGISTERED LANDSCAPE ARCHITECT — PRELIMINARY NOT FOR CONSTRUCTION — STATE OF OHIO

Plant List					
ID	Qty	Latin Name	Common Name	Scheduled Size	Remarks
AAB	6	Aronia arbutifolia 'Brilliantissima'	Brilliant Red Chokeberry	7 Gal	Fully rooted containers, matching forms
AFAB	10	Acer x freemanii 'Jeffsred' P.P.# 4864	Autumn Blaze(R) Maple	2.5" Cal	Limbed to 6'
ALC	7	Amelanchier laevis 'Cumulus'	Cumulus Serviceberry	2" Cal	Select specimentree-form, matching forms.
ASA	3	Acer saccharum 'Astis'	Steeple(R) Sugar Maple	2.5" Cal	Limbed to 6'
BGV	74	Buxus 'Green Velvet' (COPF)	Green Velvet Boxwood	18" Spr	B&B
CAC	3	Clethra alnifolia 'Caleb' P.P.A.F., CBRAF	Vanilla Spice® Summersweet	3 Gal	Matching form, fully rooted containers
CCAOH	10	Cercis canadensis 'Ace Of Hearts' P.P.A.F.	Ace of Hearts Redbud	2" Cal	Select specimen, matching forms.
COGR	1	Cotinus x 'Grace'	Grace Smoke Tree	15 Gal	Matching form, fully rooted container, pruned to form multi-stem tree
GTI	2	Gleditsia triacanthos var. inermis 'Imperial'	Imperial Honeylocust	2.5" Cal	Limbed to 6'
ID	0	Latin Name	Common Name	Scheduled Size	Notes
JCNC	90	Juniperus chinensis 'Nick's Compact'	Nick's Compact Juniper	3 Gal	Matching form, fully rooted pots
LITUL	10	Liriodendron tulipifera	Tulip Tree	2.5" Cal	Limbed to 6'
LMEG	181	Liriope muscari 'Evergreen Giant'	Evergreen Giant Lilyturf	1 Gal	Fully rooted pots
MTSC	13	Malus transitoria 'Schmidtcutleaf'	Golden Raindrops® Crabapple	2" Cal	Select specimen, matching forms.
PIAB	41	Picea abies	Norway Spruce	6' Ht	Selected for full matching form.
POKR	36	Pennisetum orientale 'Karley Rose' P.P.A.F.	Karley Rose Fountain Grass	3 Gal	Fully rooted pots
PVW	42	Panicum virgatum 'Warrior'	Warrior Switch Grass	3 Gal	Fully rooted pots
QUSH	1	Quercus shumardii	Shumard Oak	2.5" Cal	Limbed up to 6' Ht.
SBAW	28	Spiraea x bumalda 'Anthony Waterer'	Anthony Waterer Spirea	5 Gal	Matching form, fully rooted pots
SSP	16	Symphoricarpos 'Scarlet Pearl' P.P.# 13244	Scarlet Pearl Snowberry	5 Gal	Fully rooted container, matching form
TOP	19	Thuja occidentalis 'Pyramidalis'	Pyramidal Arborvitae	6' HT	B&B, Selected for consistent form, required adequate rootball.
TPGG	41	Thuja x plicata 'Green Giant'	Green Giant Arborvitae	6' Ht	B&B, adequate rootball size.
UPE	12	Ulmus parviflora 'Elmer II' P.P.# 7552	Allee Chinese Elm	2.5" Cal	Limbed to 6'
VDH	7	Viburnum dilatatum 'Henneke' P.P.A.F.	Cardinal Candy(Tm) Viburnum	4'HT	B&B Matching forms
VIBA	95	Viburnum rhytidophylloides 'Allegheny'	Allegheny Viburnum	4' HT	B&B, Selected for consistent form.
VPTS	27	Viburnum plicatum tomentosum 'Shasta'	Shasta Viburnum	4'HT	B&B
WFRP	41	Weigela florida 'Red Prince'	Red Prince Weigela	3 Gal	Matching form, fully rooted pots

1 Revised Plant List

PRELIMINARY NOT FOR CONSTRUCTION
REGISTERED LANDSCAPE ARCHITECT
STATE OF OHIO
Edward

SHP LEADING DESIGN
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SOUTH-WESTERN CITY SCHOOL DISTRICT
MONTEREY ELEMENTARY SCHOOL
2584 Dennis Lane, Grove City, Ohio 43123

SOUTH-WESTERN CITY SCHOOL DISTRICT
3805 Marlane Drive, Grove City, OH 43123

DATE: 16 JAN 2013
COMM NO. 2012014.03
RLP-3

SHP
LEADING DESIGN

January 16, 2013

Narrative Response
Grove City Development Review (dated Jan 11, 2013)
New Monterey Elementary School, South-Western City School District

New Monterey Elementary School
New entrance frontage along Hoover Road
Total building square footage = 61,616 s.f.
Classroom square footage = 18,655 s.f.
Site acreage = 9.79 acres

The South-Western City School district has entered into a partnership with the Ohio Facilities Construction Commission to replace their elementary school facilities including four elementary schools in Grove City, Ohio. Monterey is the first project in Grove City as part of phase 1, Highland & JC Sommer Elementary Schools will be part of phase 2 beginning in the fall of 2013 and Richard Avenue Elementary will be part of phase 3 beginning in the fall of 2014.

Further the existing Monterey Elementary will be used as a swing site for Richard Avenue students for one school year as the Richard Avenue building will require demolition prior to replacement construction in the fall of 2014. All projects across the district are slated to be finished and occupied by the fall of 2016 and all former building facilities will be demolished.

The following narrative references the review comments provided by Grove City departments to the district in a review letter dated January 11, 2013

Item#1 – the district has proposed a site use policy to use the Dennis Lane entrance as the primary parent drop-off and pick-up to allow for maximum on-site stacking – further, provided temporary closure of the Hoover Road entrance during peak traffic times to avoid any off-site stacking on Hoover Road.

Item#2&3 - a revision to provide green space, relocation of parking and cross-walk as recommend will be included in revised site drawing.

Item#4 – Bus turning template compliant with Ohio School Design Manual will be provided.

Item#5 - the project is part of co-funded budget agreement with the OFCC/State of Ohio. The recreational trail cannot be part of this co-funding agreement with the State and the budget is

fully committed to the co-funded school construction compliant with the State's Ohio School Design Manual. The district is willing to enter into partnership with the City for future development of green space and recreation uses as appropriate.

Item#6 – no operational equipment will be placed on rooftops, however termination outlets of ventilation systems will be present. The maximum height of these terminations will be _____. Please see attached 3D view of building indicating site-line limitations to neighboring property lines. – **See Exhibit "E"**

Item#7 – lighting locations are shown on plan submissions – fixture cut-sheets will be provided with revised submittal. **Exhibit "A"**

Item#8 – Site furnishing details will be provided – **see Exhibit "D"**

Item#9 – physical samples will be provided.

Item#10 – one page listing of all exterior finish materials will be provided. **Exhibit "B"**

Item#11 &15 – Monument sign will be submitted under separate cover for approval including required variance requests

Item#12 – setbacks lines will be indicated on revised submission plans

Item#13 – signature block is provide on sheet title block

Item#14 – per introductory information classroom square footage = 18,655 s.f.

Item#16 – can be considered in fall 2016 when existing former school is removed from service

Item#17 – we expect to apply for a new Hoover Road address for the new school

Item#18 – the new building will be complete and occupied for the 2014 school year and used for swing space for the Richard Avenue students for the 2015 school year. Demolition of existing building will take place summer 2016.

Item#21 – The frontage landscape hedge will be revised to evergreen species per requirements – **see Exhibit "C"**

Item#22 & 23 – acknowledged, will comply

Item#24 – clarification of tree count will be provided – **see Exhibit "C"**

Items#25 – 40 – ALL REQUIRED references and details will be provide on revised civil engineering submission.

Please do not hesitate to contact me if you have questions or need additional information.

Michael P. Dingeldein, AIA
SHP Leading Design
236 High Street
Hamilton, Ohio 45013

Sincerely,
SHP Leading Design

Michael P. Dingeldein, AIA, LEED AP, CNU-A
mdingeldein@shp.com
513-607-8732

SHP
LEADING DESIGN

Exhibit "B" - 2 pages

January 16, 2013

Exterior Manufacturers and Materials

Standing Seam Metal Roof
Manufacturer: DMI
Color: Beige

Cast Iron Downspout Boots
Manufacturer: Neenah
Color: Custom color to match DMI's Putty

Gutters, Downspouts, Rake, and Fascia
Manufacturer: DMI
Color: Putty

Windows and Storefront
Manufacturer: EFCO
Color: Custom color to match DMI's Putty

Metal Coping
Manufacturer: Metal-Era
Color: Custom color to match DMI's Putty

Curtain Wall
Manufacturer: Kawneer
Color: Custom color to match DMI's Putty

4805 Montgomery Road Suite 400
Cincinnati, Ohio 45212
513.381.2112 main
513.381.5121 fax

236 High Street
Hamilton, Ohio 45011
513.863.5441 main
513.863.5596 fax

250 Civic Center Drive Suite 200
Columbus, Ohio 43215
614.223.2124 main
614.223.2130 fax

Steed Hammond Paul Inc

Louvers
Manufacturer: Airolite
Color: Custom color to match DMI's Putty

Metal Wall Panels
Manufacturer: AEP
Color: Custom color to match DMI's Putty

Overhead Coiling Doors
Manufacturer: Wayne-Dalton
Color: Custom color to match DMI's Putty

Hollow Metal Doors and Frames
Manufacturer: Ceco Door Products
Color: Custom color to match DMI's Putty

Brick
Manufacturer: Belden
Color 1: Commodore

Manufacturer: Belden
Color 2: Dutch Gray

Mortar
Manufacturer: Brixment
Color: C-224

Letters
Manufacturer: Gemini
Color: Dark Bronze

Glazing:
Manufacturer: PPG
Color: Clear

Fiberglass-Sandwich Panel
Manufacturer: Kalwall
Color: White

KIM LIGHTING

WD14

14″ Wall Director®, Electronic-LED

revision 7-12-10 • kim_wd14led_spec.pdf

Type:
Job:
Catalog number:

/ / /

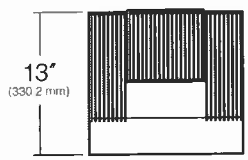
Fixture | Electrical Module | Finish | Options
See page 2 | See pages 3-4

Approvals:

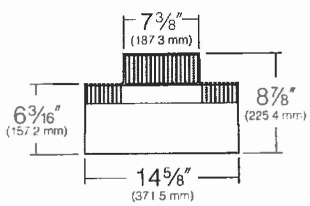
Date:
Page: 1 of 4

Specifications

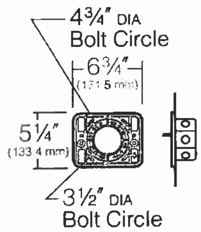
WD14-LED
60 Light Emitting Diodes
Total Max System Watts = 73W
Maximum Weight = 26 lbs.



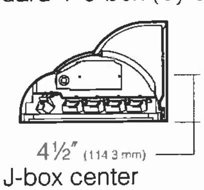
TOP



FRONT



Mounting Plate
Attaches directly to any standard 4″ J-box (by others)



To J-box center
SIDE

HUBBELL
HUBBELL LIGHTING, INC.

Reflector Housing: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral cooling fins. Rotates against ballast housing to provide 10° of adjustment with degree markers cast into the housing. At 0° adjustment, lens is totally concealed from view above horizontal with fixture aimed downward.

Ballast Housing: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral cooling fins. Fastens to mounting plate with keyhole slots freeing both hands for securing and wiring. One stainless steel socket-head screw on each side of housing frees the reflector housing to rotate for aiming. Tightening the screws locks the two housings together with sealing provided by a silicone gasket. For visual aiming, adjustment may be accomplished with the fixture on.

Lens Frame: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral hinges and stainless steel pins. Toolless access to reflector housing with sealing provided by a one-piece extruded and vulcanized silicone gasket. Lens is clear flat ³⁄₁₆″ thick tempered glass sealed to lens frame with a silicone gasket and retainer clips. For UP models, lens is mounted flush with frame for water run off, and is silicone sealed.

Electronic Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Module includes a driver, thermal control device and surge protector.Electrical module attaches to housing with no-tool hinges and latches, accessible by opening the lens frame only. Driver is rated for -40°F starting and has a 0-10V dimming interface for multi-level illumination options.

Optical Module: Precision, replaceable MicroEmitters are positioned to achieve directional control toward desired task. The entire EmitterDeck fastens to the housing as a one-piece module.

Electrical Components: High power factor ballasts are rigidly mounted inside the housing and are factory prewired with a quick-disconnect plug for mating to the socket.

Mounting Plate: Mounting plate attaches directly to any standard 4″ junction box. All mounting plates are die-cast aluminum with reinforced ribs. Two studs are provided in each plate with flange nuts to allow fixture mounting by keyhole slots. Sealant must be applied (by others) between mounting plate and mounting surface to insure a dry junction box.

Finish/Color: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a titanated zirconium conversion coating; A.S.T.M. 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Stealth Gray®, Platinum Silver, or White. Custom colors are available.

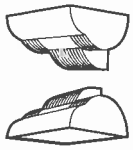
Warranty: Kim Lighting warrants Wall Director LED products ("Product(s)") sold by Kim Lighting to be free from defects in material and workmanship for (i) a period of five (5) years for metal parts, (ii) a period of ten (10) years for exterior housing paint finish(s), (iii) a period of six (6) years for LED Light Engines and, (iv) a period of five (5) years for LED power components (driver, surge protector and LifeShield™ device), from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each product.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings			
ETL to UL 1598[1] Standards	IP66 Rated	CE	25°C Ambient

[1]Suitable for wet locations

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.



Standard Features

Fixture
Cat. No. designates **WD14** fixture, Up (U) or Down (D) configuration, and light distribution (2, 3 or 4).

WD14 | x | x

Housing Size:
WD14

Distribution:
☐ U = Up
☐ D = Down

Type:
☐ 2 = Type II
☐ 3 = Type III
☐ 4 = Type IV

Light Distribution:


Type II


Type III


Type IV

Electrical Module

Cat. Nos. for Electrical Modules available:

60 | LxK | x

Source:
60 = 60 LED's

Color Temperature:[1]
☐ L3K = 3500K
☐ L5K = 5100K
☐ L2K = 580nm - Amber

Voltage:
☐ 120 = 120V
☐ 208 = 208V
☐ 240 = 240V
☐ 277 = 277V
☐ 347 = 347V[2]
☐ 480 = 480V[2]

[1]4300K and 6500K are also available on an "Engineered-to-Order" (ETO) basis.

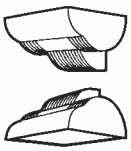
[2]Due to current unavailability of 347V and 480V drivers, specification of these voltages may feature an integral step-down transformer.

Fixture	Total System Watts	Volt	Operating Amps
WD14-Small	73	120	0.61
WD14-Small	73	208	0.35
WD14-Small	73	240	0.30
WD14-Small	73	277	0.26
WD14-Small	73	347	0.21
WD14-Small	73	480	0.15

Finish
Super TGIC powder coat paint over a titanated zirconium conversion coating.

Color: Black | Dark Bronze | Light Gray | Stealth Gray® | Platinum Silver | White | Custom Color[1]
Cat. No.: ☐ **BL** ☐ **DB** ☐ **LG** ☐ **SG** ☐ **PS** ☐ **WH** ☐ **CC**

[1]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____



Optional Features

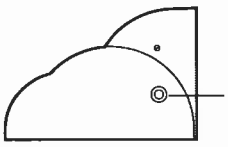
Base Socket
Cat. No. ☐ **G12**
☐ **No Option**

G12 base socket available for 70W and 150W Pulse Start Metal Halide lamps only.

Photocell Control
Cat. No. **(see right)**
☐ **No Option**

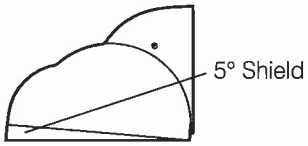
Factory installed inside housing with fully gasketed sensor on side wall.

Cat. No.	Line Volts:	Cat. No.	Line Volts:
☐ **A-30**	120V	☐ **A-33**	277V
☐ **A-31**	208V	☐ **A-34**	480V
☐ **A-32**	240V	☐ **A-35**	347V



5° Shield
Cat. No. ☐ **5DS14**
☐ **No Option**

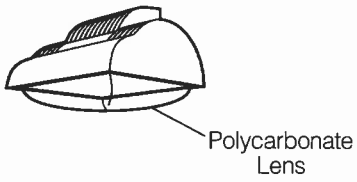
Aluminum shield field-attached to lens frame. Maintains a horizontal cutoff fixture edge when the luminaire is tilted 5°. Finished to match the fixture.



Polycarbonate Lens:
Cat. No. ☐ **LS**
☐ **No Option**

Clear flat polycarbonate lens replaces standard tempered glass lens.

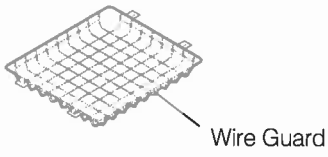
NOTE: Use only when vandalism is anticipated to be high. Useful life is limited by UV discoloration from sunlight. A program of regular inspection and periodic replacement is highly recommended to maintain optimum fixture performance.



Wire Guard
Cat. No. ☐ **WG14**
☐ **No Option**

11 ga. (.12" dia.) BB Wire, (.75" sq. welded mesh pattern,) 11⅜" x 10¼" x 1½" deep. Finish is super TGIC thermoset polyester powder coat paint, over zinc plated wireform. Finished to mach the fixture.

NOTE: Only available with flat lens applications.



Fusing
Cat. No. **(see right)**
☐ **No Option**

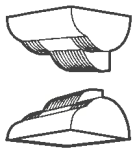
Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	☐ **SF**	☐ **DF**	☐ **DF**	☐ **SF**	☐ **SF**	☐ **DF**

Surface Conduit Mount
Cat. No. ☐ **SCM14U**
☐ **SCM14D**
☐ **No Option**

Cast aluminum junction box and fixture mount for attachment (by others) to existing walls, beams or columns. **SCM14** has one ¾" NPT conduit tap in each side and bottom. Must be securely mounted to wall surface. Finished to match the fixture.

SCM14U for UP fixtures only.
SCM14D for DOWN fixtures only.

Note: Must be securely mounted to all surface.

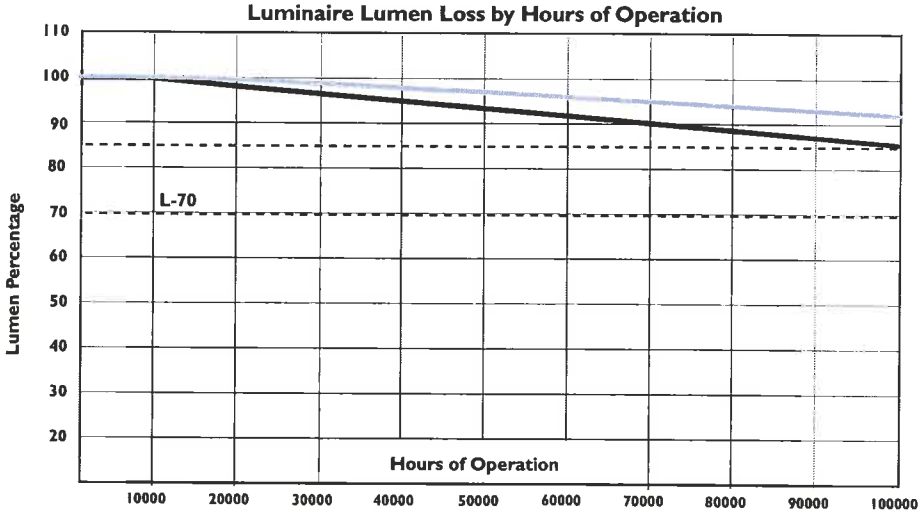


Lumen Performance Charts

NOTES:

1. Lumen loss stablization is a result of Kim Lighting's MicroEmitter™ luminaires exclusive LifeShield™ Protection System and Dual Heat Management.
2. The LifeShield™ Protection System will lower the current to the LEDs significantly if the luminaire is exposed to direct heat (sun) or excessive abnormal conditions.
3. Luminaire Lumen Loss assumptions are based on LM-80 results and an actual outdoor product testing based upon 5100K CCT, 350mA drive current. 25°C/77°F tab ambient and cathode temperature at 85°C/185°F. Assumptions past 6,000 hours are interpolated.
4. Cathode temperature baseline is at 85°C/185°F. If cathode temperature increases during ambient changes and abnormal environment conditions, % of rated lumens will slightly decrease.
5. Outdoor ambient temperatures are assumed SITU average by geographic region.
6. As Solid State Lighting technology and thermal management systems continually advance, lumen loss projections are subject to improvement.

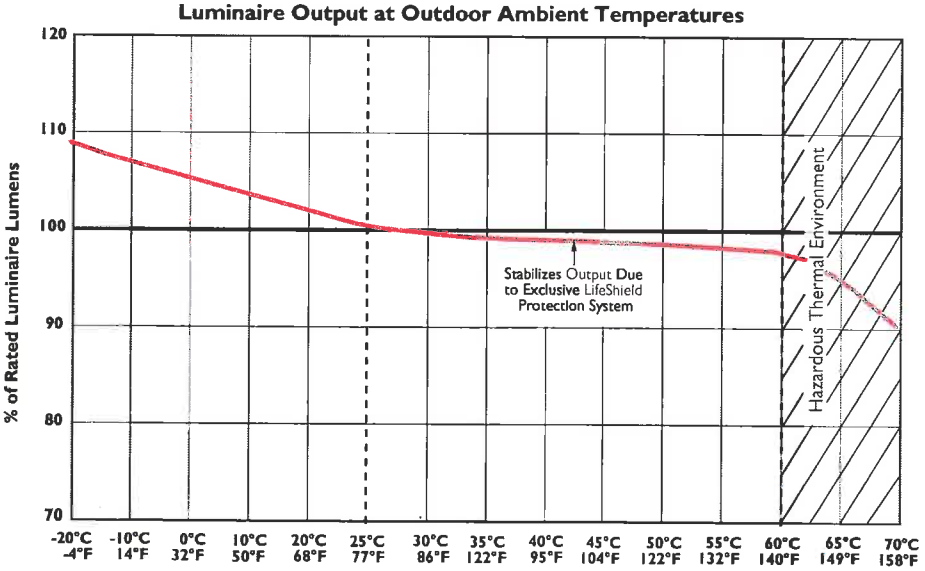
Luminaire Lumen Loss by Hours of Operation



Outdoor Temperature at 10°C/50°F. Temperature is based on continual average, annual assumptions.

Outdoor Temperature at 40°C/104°F. Temperature is based on continual average, annual assumptions.

Luminaire Output at Outdoor Ambient Temperatures



KIM LIGHTING

WD18

18″ Wall Director®, Electronic-LED

revision 8-16-10 • kim_wd18led_spec.pdf

Type:
Job:
Catalog number:

/ / /

Fixture | Electrical Module | Finish | Options

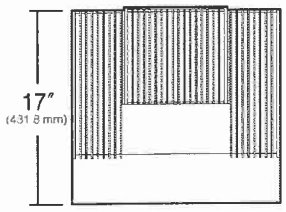
See page 2 | See pages 3-4

Approvals:

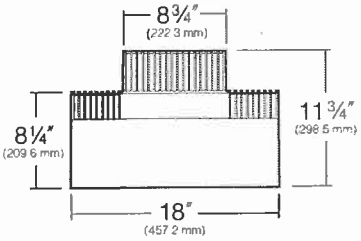
Date:

Specifications

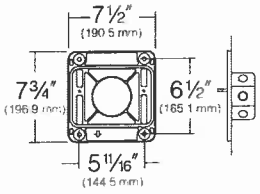
WD18-LED
120 Light Emitting Diodes
Total Max System Watts = 140W
Maximum Weight = 43 lbs.



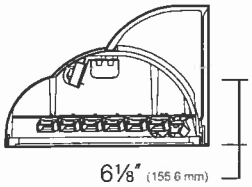
TOP



FRONT



Mounting Plate
must be securely attached to wall outside the J-box perimeter.



to J-box center

SIDE

HUBBELL LIGHTING, INC

Reflector Housing: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral cooling fins. Rotates against ballast housing to provide 10° of adjustment with degree markers cast into the housing. At 0° adjustment, lens is totally concealed from view above horizontal with fixture aimed downward.

Ballast Housing: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral cooling fins. Fastens to mounting plate with keyhole slots freeing both hands for securing and wiring. One stainless steel socket-head screw on each side of housing frees the reflector housing to rotate for aiming. Tightening the screws locks the two housings together with sealing provided by a silicone gasket. For visual aiming, adjustment may be accomplished with the fixture on.

Lens Frame: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral hinges and stainless steel pins. Two stainless steel quarter-turn fasteners secure lens frame to reflector housing with sealing provided by a one-piece extruded and vulcanized silicone gasket. Lens is clear flat 3/16″ thick tempered glass sealed to lens frame with a silicone gasket and retainer clips. For UP models, lens is mounted flush with frame for water run off, and is silicone sealed.

Electronic Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Module includes a driver, thermal control device and surge protector.Electrical module attaches to housing with no-tool hinges and latches, accessible by opening the lens frame only. Driver is rated for -40°F starting and has a 0-10V dimming interface for multi-level illumination options.

Optical Module: Precision, replaceable MicroEmitters are positioned to achieve directional control toward desired task. The entire EmitterDeck fastens to the housing as a one-piece module.

Mounting Plate: The standard mounting plate is attached to wall (by others) outside the junction box perimeter. All mounting plates are die-cast aluminum with reinforced ribs. Two studs are provided in each plate with flange nuts to allow fixture mounting by keyhole slots. Sealant must be applied (by others) between mounting plate and mounting surface to insure a dry junction box.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a titanated zirconium conversion coating; A.S.T.M. 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Stealth Gray®, Platinum Silver, or White. Custom colors are available.

Warranty: Kim Lighting warrants Wall Director LED products ("Product(s)") sold by Kim Lighting to be free from defects in material and workmanship for (i) a period of five (5) years for metal parts, (ii) a period of ten (10) years for exterior housing paint finish(s), (iii) a period of six (6) years for LED Light Engines (MicroEmitters) and, (iv) a period of five (5) years for LED power components (LED Driver, LifeShield™ device, Surge Protector), from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each product.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings			
ETL to UL 1598[1] Standards	IP66 Rated	CE	25°C Ambient

[1]Suitable for wet locations

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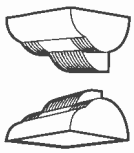


Standard Features

Fixture
Cat. No. designates **WD18** fixture, Up (U) or Down (D) configuration, and light distribution (2, 3 or 4).

WD18 | x | x

Housing Size:
WD18

Distribution:
☐ U = Up
☐ D = Down

☐ 2 = Type II
☐ 3 = Type III
☐ 4 = Type IV

Light Distribution:

Type II Type III Type IV

Electrical Module

Cat. Nos. for Electrical Modules available:

120 | LxK | x

Source:
120 = 120 LED's

Color Temperature:[1]
☐ L3K = 3500K
☐ L5K = 5100K
☐ L2K = 580nm - Amber

Voltage:
☐ 120 = 120V
☐ 208 = 208V
☐ 240 = 240V
☐ 277 = 277V
☐ 347 = 347V
☐ 480 = 480V

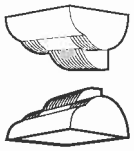
[1]4300K and 6500K are also available on an "Engineered-to-Order" (ETO) basis.

Fixture	Total System Watts	Volt	Operating Amps
WD18-Large	140	120	1.17
WD18-Large	140	208	0.67
WD18-Large	140	240	0.58
WD18-Large	140	277	0.51
WD18-Large	140	347	0.40
WD18-Large	140	480	0.29

Finish
Super TGIC powder coat paint over a titanated zirconium conversion coating.

Color: Black | Dark Bronze | Light Gray | Stealth Gray[1] | Platinum Silver | White | Custom Color[1]
Cat. No.: ☐ **BL** ☐ **DB** ☐ **LG** ☐ **SG** ☐ **PS** ☐ **WH** ☐ **CC**

[1]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____

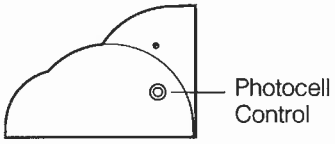


Optional Features

Photocell Control
Cat. No. **(see right)**
☐ **No Option**

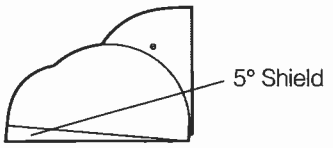
Factory installed inside housing with fully gasketed sensor on side wall.

Cat. No.	Line Volts:	Cat. No.	Line Volts:
☐ **A-30**	120V	☐ **A-33**	277V
☐ **A-31**	208V	☐ **A-34**	480V
☐ **A-32**	240V	☐ **A-35**	347V



5° Shield
Cat. No. ☐ **5DS18**
☐ **No Option**

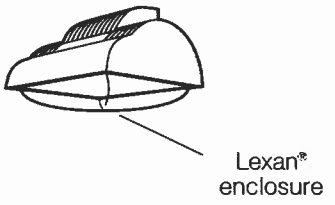
Aluminum shield field-attached to lens frame. Maintains a horizontal cutoff fixture edge when the luminaire is tilted 5°. Finished to match the fixture.



Lexan® Enclosure:
Cat. No. ☐ **LS**
☐ **No Option**

For DOWN fixture models only. Clear convex vacumm formed Lexan® enclosure with gasket replaces standard tempered glass lens. 250W max. May be used with 400W HPS only in outdoor locations where ambient air temperature during fixture operation will not exceed 85°F.

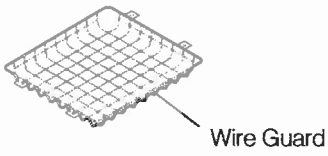
NOTE: Use only when vandalism is anticipated to be high. Useful life is limited by UV discoloration from sunlight and MH lamps. A program of regular inspection and periodic replacement is highly recommended to maintain optimum fixture performance.

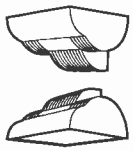


Wire Guard
Cat. No. ☐ **WG18**
☐ **No Option**

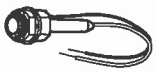
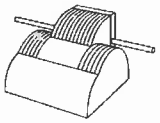
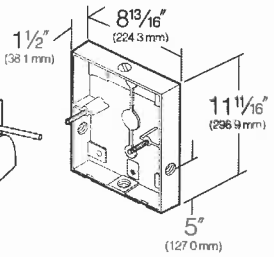
11 ga. (.12″ dia.) BB Wire, (.75″ sq. welded mesh pattern.) 15″ x 14½″ x 1½″ deep. Finish is super TGIC thermoset polyester powder coat paint, over zinc plated wireform. Finished to match the fixture.

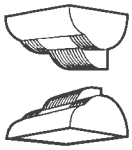
NOTE: Only available with flat lens applications.





Optional Features

Fusing Cat. No. **(see right)** ☐ **No Option**	Line Volts: 120V 208V 240V 277V 347V 480V Cat. No.: ☐ **SF** ☐ **DF** ☐ **DF** ☐ **SF** ☐ **SF** ☐ **DF** 
Surface Conduit Mount Cat. No. ☐ **SCM18** ☐ **No Option**	Cast aluminum junction box and fixture mount for attachment (by others) to existing walls, beams or columns. **SCM18** has one ¾″ NPT conduit tap in each side, top and bottom. Finished to match the fixture. **SCM18** for all fixtures, UP and DOWN. **Note:** Must be securely mounted to all surface.  

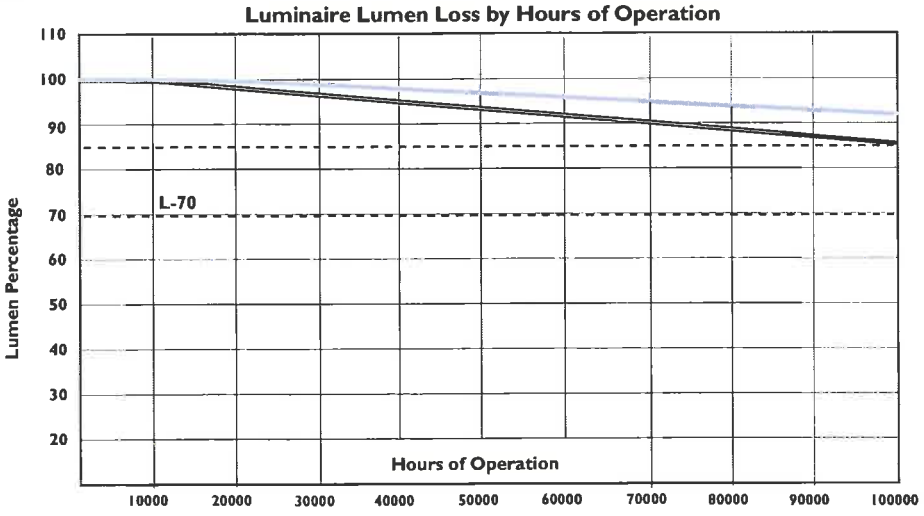


Lumen Performance Charts

NOTES:

1. Lumen loss stablization is a result of Kim Lighting's MicroEmitter™ luminaires exclusive LifeShield™ Protection System and Dual Heat Management.
2. The LifeShield™ Protection System will lower the current to the LEDs significantly if the luminaire is exposed to direct heat (sun) or excessive abnormal conditions.
3. Luminaire Lumen Loss assumptions are based on LM-80 results and an actual outdoor product testing based upon 5100K CCT, 350mA drive current. 25°C/77°F tab ambient and cathode temperature at 85°C/185°F. Assumptions past 6,000 hours are interpolated.
4. Cathode temperature baseline is at 85°C/185°F. If cathode temperature increases during ambient changes and abnormal environment conditions, % of rated lumens will slightly decrease.
5. Outdoor ambient temperatures are assumed SITU average by geographic region.
6. As Solid State Lighting technology and thermal management systems continually advance, lumen loss projections are subject to improvement.

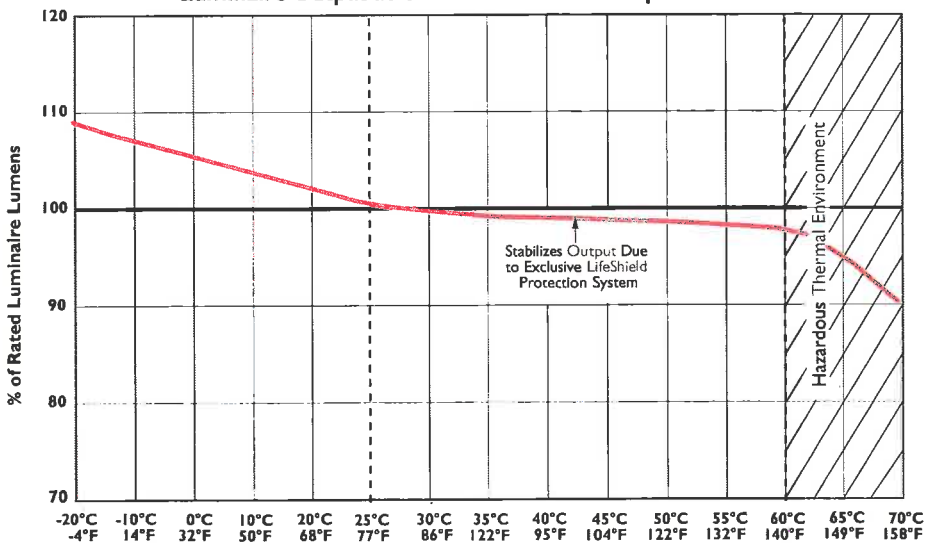
Luminaire Lumen Loss by Hours of Operation



Outdoor Temperature at 10°C/50°F. Temperature is based on continual average, annual assumptions.

Outdoor Temperature at 40°C/104°F. Temperature is based on continual average, annual assumptions.

Luminaire Output at Outdoor Ambient Temperatures



KIM LIGHTING

AR

The Archetype® -Large, Electronic-LED

revision 12/27/12 • kl_arled_spec.pdf

Type:
Job:
Catalog number:

/ / / / /

Mtg. | Fixture | Electrical Module (See page 2) | Finish | Options (See pages 3-4) | Optional Vertical Slipfitter Mount (See page4)

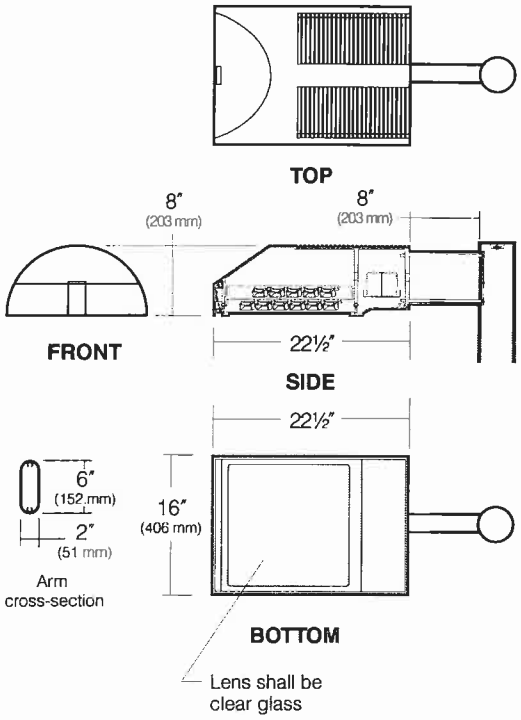
Select pole from Kim Arms and Poles Selection Guide. If pole is provided by others indicate O.D. for arm fitting.

Approvals:

Date:

Specifications

AR-LED
120 Light Emitting Diodes
Total Max System Watts = 130W
Maximum Weight = 50 lbs.



Housing: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral cooling ribs over the optical chamber and electrical compartment. Solid barrier wall separates optical and electrical compartments. Double-thick wall with gussets on the support-arm mounting end. Housing forms a half cylinder with 55° front face plane providing a recess to allow a flush single-latch detail. All hardware is stainless steel or electro-zinc plated steel.

Lens Frame: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy lens frame with 1" minimum depth around the gasket flange. Integral hinges with stainless steel pins provide no-tool mounting and removal from housing. Single die-cast aluminum cam-latch provides positive locking and sealing of the optical chamber by a one-piece extruded and vulcanized silicone gasket to provide an IP66 rating for the optical module. Clear 3/16" thick tempered glass lens retained by eight steel clips with full silicone gasketing around the perimeter.

Electronic Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Module includes a driver, thermal control device and surge protector. Electrical module attaches to housing with no-tool hinges and latches, accessible by opening the lens frame only. Driver is rated for -40°F starting and has a 0-10V dimming interface for multi-level illumination options.

Optical Module: Each precision, replaceable MicroEmitter® is positioned to achieve directional control toward desired task. The entire EmitterDeck® fastens to the housing as a one-piece module.

Support Arm: One-piece extruded aluminum with internal bolt guides and fully radiussed top and bottom. Luminaire-to-pole attachment is by internal draw bolts, and includes a pole reinforcing plate with wire strain relief. Arm is circular cut for specified round pole.

Optional Wall Mounting: Fixture mounted to poured concrete walls only. A modified support arm is provided with side access to allow field splices within the arm. A wall embedment bracket is provided to accept draw bolts, and a trim plate covers the wall-embedded junction box. All wall mount components are finished to match the fixture.

Finish: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish. Standard colors include (BL) Black, (DB) Dark Bronze, (WH) White, (PS) Platinum Silver, (SG) Stealth Gray, (LG) Light Gray, and (CC) Custom Color (Include RAL#).

Warranty: Kim Lighting warrants The Archetype LED products ("Product(s)") sold by Kim Lighting to be free from defects in material and workmanship for (i) a period of five (5) years for metal parts, (ii) a period of ten (10) years for exterior housing paint finish(s), (iii) a period of six (6) years for LED Light Engines (MicroEmitters) and, (iv) a period of five (5) years for LED power components (LED Driver, LifeShield® device, Surge Protector), from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each product.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings		
ETL to UL 1598[1] Standards	CE	25°C Ambient

[1]Suitable for wet locations.

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

HUBBELL LIGHTING, INC.

Patent Pending

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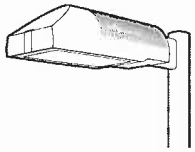


Standard Features

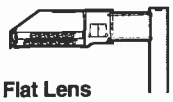
Mounting
3Y configuration is available for round poles only.

Plan View:

Wall Mount

EPA:	1.2	2.4	2.0	3.2	3.2	3.9	n/a
Cat. No.:	☐ **1A**	☐ **2B**	☐ **2L**	☐ **3T**	☐ **3Y**	☐ **4C**	☐ **1W**

Fixture
Cat. No. designates fixture and optic



Flat Lens

AR ____ x ____

Housing Size:
AR

Distribution:
- ☐ 2 = Type II Full Cutoff
- ☐ 3 = Type III Full Cutoff
- ☐ 4 = Type IV Full Cutoff
- ☐ 5 = Type V Square Full Cutoff
- ☐ L = Type L Left Full Cutoff
- ☐ R = Type R Right Full Cutoff

Light Distribution:

Type II

Type III

Type IV Forward Throw

Type V Square

Type R Right

Type L Left

Electrical Module

Cat. Nos. for Electrical Modules available:

120L ____ xK ____ x ____

Source:
120L = 120 LED's

Color Temperature:[1]
- ☐ 4K = 4000K
- ☐ 5K = 5000K
- ☐ 2K = 580nm - Amber

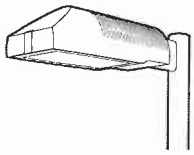
Voltage:
- ☐ 120 = 120V
- ☐ 208 = 208V
- ☐ 240 = 240V
- ☐ 277 = 277V
- ☐ 347 = 347V
- ☐ 480 = 480V

[1]3000K is also available on an "Engineered-to-Order" (ETO) basis.

Finish
TGIC powder coat

Color:	Black	Dark Bronze	Light Gray	Stealth Gray	Platinum Silver	White	Custom Color[1]
Cat. No.:	☐ **BL**	☐ **DB**	☐ **LG**	☐ **SG**	☐ **PS**	☐ **WH**	☐ **CC**

[1]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____

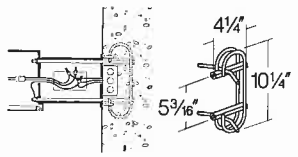


Optional Features

Wall Mounting
Cat. No. ☐ **1W**
☐ **No Option**

Select from Mounting on page **2**.

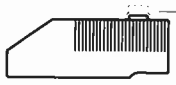
Fixture mounted to poured concrete walls only. A modified support arm is provided with side access to allow field splices within the arm. A wall embedment bracket **(WEB)** is provided to accept draw bolts, and a trim plate covers the wall-embedded junction box. All wall mount components are finished to match the fixture.



Wall mount using wall embedment bracket - J-box in wall (by others)

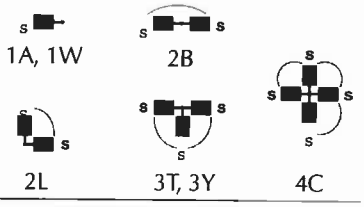
Photocell Receptacle
Cat. No. ☐ **A-25**
☐ **No Option**

Fixture supplied with a fully gasketed receptacle above the electrical compartment for NEMA base photocell (by others). For all multiple-fixture pole mountings with two or three fixtures, one fixture has a receptacle to operate the others.



Mounting (see page **2**)

s – Fixture with Photocell Receptacle
S – slave unit(s)



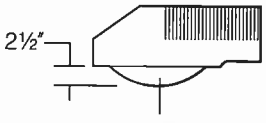
Allowable wattage per fixture: 140W

Dimming Controls

The Archetype LED driver is a 0-10V dimming interface, allowing 0-100% illumination output when synchronized with a control and dimming system, provided by others. Kim Lighting is working with several control system manufacturers to develop a variety of proven turnkey solutions to meet any application's need. Kim Lighting will advise availability of complete control packages, and even two-way monitoring systems, once they have been tested and exceed Kim's high quality standards.

Convex Glass Lens
Cat. No. ☐ **CGL**
☐ **No Option**

The ³⁄₁₆" thick clear convex tempered glass lens replaces the standard flat glass lens. Provides increased lens presence and provides a subtle improvement in uniformity where pole spacing is extreme. Increases effectiveness of houseside shielding.

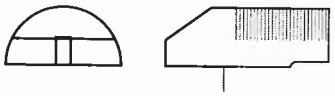


Convex Glass Lens

Polycarbonate Lens
Cat. No. ☐ **LS**
☐ **No Option**

Fixture supplied with a one-piece flat, clear, UV stabilized polycarbonate, fully gasketed, replacing the standard tempered glass lens.

CAUTION: Use only when vandalism is anticipated to be high.

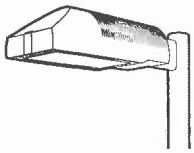


Flat Lens

Fusing
Cat. No. **(see right)**
☐ **No Option**

Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	☐ **SF**	☐ **DF**	☐ **DF**	☐ **SF**	☐ **SF**	☐ **DF**

Single Fuse

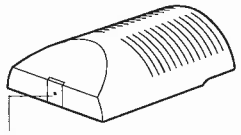


Optional Features

Tamper-Resistant Latch
Cat. No. ☐ **TL**
☐ **No Option**

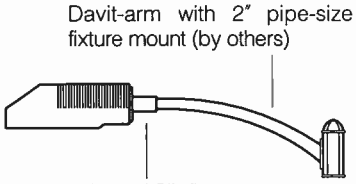
Standard die-cast latch is provided with a captive 10-32 stainless steel flat socket-head screw to prevent unauthorized opening.

NOTE: Required only for vandal protection in locations where fixtures can be reached by unauthorized persons.


Tamper-Resistant Latch

Horizontal Slipfitter Mount
Cat. No. ☐ **HSF**
☐ **No Option**

Replaces standard mounting arm with a slipfitter which allows fixture to be mounted to a horizontal pole davit-arm with 2" pipe-size mounting end (2⅜" O.D.). Cast aluminum slipfitter with set screw for an up or down 5° adjustment lock. Bolts to housing from inside the electrical compartment using mounting holes for the standard support arm. Davit-arm must be field drilled at a set screw location to insure against fixture rotation. Finished to match fixture.



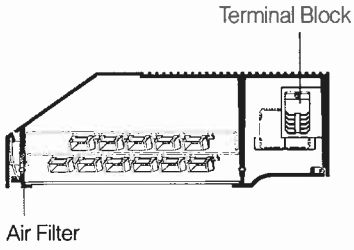
Special Options for Street Lighting
Cat. No. **(See right)**

Terminal Block: (For field wire connections.) 85AMP, 600V box clamp terminal block mounted to the housing inside the electrical compartment. Accepts #14-4 wire. Factory prewired to electrical module quick-disconnect plug.

☐ **TB**
☐ **No Option**

Air Filter: Allows for ventilation through the optical chamber, filtering all air particles above 500 microns. Mounted on solid wall between optical compartment and latch cavity.

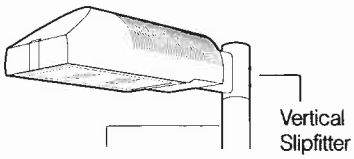
☐ **AF**
☐ **No Option**



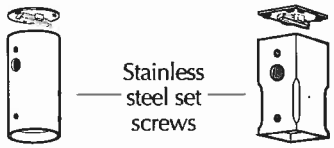
Vertical Slipfitter Mounts
Cat. No. includes Mounting
Cat. No. **(See right)**
☐ **No Option**

Allows fixture with standard support arm to be mounted to poles having a 2" pipe-size tenon (2⅜" O.D. x 4½" min. length). All mounting configurations can be used (1A, 2B, 2L, 3T, 3Y, 4C). 4" square or round die-cast aluminum with flush cap, secured by four ⅜" stainless steel set point allen screws, finished to match fixture and arm.

NOTE: 3Y only available on round slipfitter.

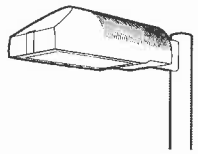


Cat. No.
☐ **VSF-1A**
☐ **VSF-2B**
☐ **VSF-2L**
☐ **VSF-3T**
☐ **VSF-3Y**
☐ **VSF-4C**



Cat. No.
☐ **SVSF-1A**
☐ **SVSF-2B**
☐ **SVSF-2L**
☐ **SVSF-3T**
☐ **SVSF-4C**

Mounting Configuration
1A - single arm mount
2B - 2 at 180°
2L - 2 at 90°
3T - 3 at 90°
3Y - 3 at 120°
4C - 4 at 90°



Lumen Performance Charts

Spectroradiometric			
	580nm - Amber Average	4000K Average	5000K Average
Correlated Color Temp. CCT (K)	N/A	N/A	5111
Color Rendering Index (CRI)	N/A	N/A	68.2
Power Factor	N/A	N/A	96.0

L70 Data (Calculated)
60,000

Electrical Drive Current		
Volts - AC	Amps - AC	System Watts
120	1.08	130
208	.63	130
240	.54	130
277	.47	130
347	.37	130
480	.27	130

B.U.G. Rating (TM15) in Lumens wher B = Backlight, U = Uplight, G = Glare				
Type II	Type III	Type IV	Type V	Type L/R
B3 U0 G3	B2 U0 G2	B0 U0 G2	B3 U0 G1	B2 U0 G2

Absolute Lumens					
Temperature	Type II	Type III	Type IV	Type V	Type L/R
580nm - Amber	N/A	N/A	N/A	N/A	N/A
4000K	6155	6324	6553	6959	6220
5000K	7506	7712	7991	8487	7585

LED performance and lumen output continues to improve at a rapid pace. Log onto www.kimlighting.com to download the most current photometric files from Kim Lighting's IES File Library.For custom optics and color temperature configurations, contact factory.
*Data is prorated from 5000K IES files.

KIM LIGHTING

SAR

The Archetype® -Small, Electronic-LED

revised 12/27/12 • kim_sarled_spec.pdf

Type:
Job:
Catalog number:

/ / / / /

Mtg. Fixture Electrical Module Finish Options Optional Vertical Slipfitter Mount

See page 2 See pages 3-4 See page4

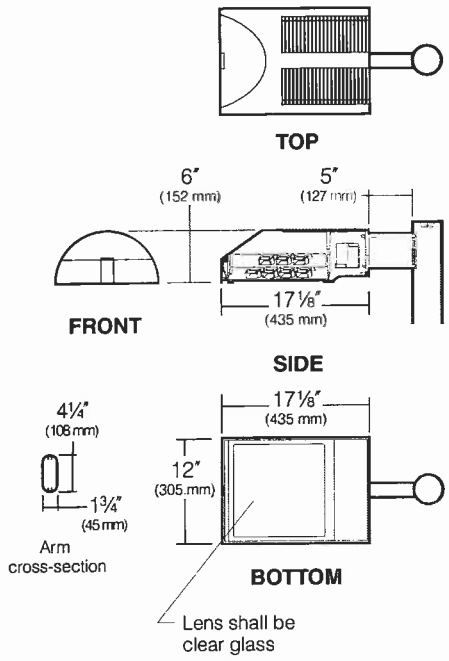
Select pole from Kim Arms and Poles Selection Guide. If pole is provided by others indicate O.D. for arm fitting.

Approvals:

Date:

Specifications

SAR-LED
60 Light Emitting Diodes
Total System Watts = 66W
Maximum Weight = 30 lbs.



Housing: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy with integral cooling ribs over the optical chamber and electrical compartment. Solid barrier wall separates optical and electrical compartments. Double-thick wall with gussets on the support-arm mounting end. Housing forms a half cylinder with 55° front face plane providing a recess to allow a flush single-latch detail. All hardware is stainless steel or electro-zinc plated steel.

Lens Frame: One-piece die-cast, low copper (<0.6% Cu) aluminum alloy lens frame with 1" minimum depth around the gasket flange. Integral hinges with stainless steel pins provide no-tool mounting and removal from housing. Single die-cast aluminum cam-latch provides positive locking and sealing of the optical chamber by a one-piece extruded and vulcanized silicone gasket to provide an IP66 rating for the optical module. Clear 3/16" thick tempered glass lens retained by eight steel clips with full silicone gasketing around the perimeter.

Electronic Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs. Module includes a driver, thermal control device and surge protector. Electrical module attaches to housing with no-tool hinges and latches, accessible by opening the lens frame only. Driver is rated for -40°F starting and has a 0-10V dimming interface for multi-level illumination options.

Optical Module: Precision, replaceable MicroEmitters are positioned to achieve directional control toward desired task. The entire EmitterDeck fastens to the housing as a one-piece module.

Support Arm: One-piece extruded aluminum with internal bolt guides and fully radiussed top and bottom. Luminaire-to-pole attachment is by internal draw bolts, and includes a pole reinforcing plate with wire strain relief. Arm is circular cut for specified round pole.

Optional Wall Mounting: Fixture mounted to poured concrete walls only. A modified support arm is provided with side access to allow field splices within the arm. A wall embedment bracket is provided to accept draw bolts, and a trim plate covers the wall-embedded junction box. All wall mount components are finished to match the fixture.

Finish: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish. Standard colors include (BL) Black, (DB) Dark Bronze, (WH) White, (PS) Platinum Silver, (SG) Stealth Gray, (LG) Light Gray, and (CC) Custom Color (Include RAL#).

Warranty: Kim Lighting warrants The Archetype LED products ("Product(s)") sold by Kim Lighting to be free from defects in material and workmanship for (i) a period of five (5) years for metal parts, (ii) a period of ten (10) years for exterior housing paint finish(s), (iii) a period of six (6) years for LED Light Engines (MicroEmitters) and, (iv) a period of five (5) years for LED power components (LED Driver, LifeShield™ device, Surge Protector), from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each product.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings		
ETL to UL 1598[1] Standards	CE	25°C Ambient

[1]Suitable for wet locations.

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.

HUBBELL LIGHTING, INC

Patent Pending

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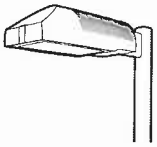


Standard Features

Mounting
3SY configuration is available for round poles only.

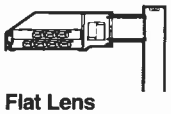
Flat Lens

Plan View:

Wall Mount

EPA:	0.7	1.4	1.2	1.9	1.9	2.5	
Cat. No.:	☐ **1SA**	☐ **2SB**	☐ **2SL**	☐ **3ST**	☐ **3SY**	☐ **4SC**	☐ **1W**

Fixture
Cat. No. designates fixture and optic



Flat Lens

SAR x

Housing Size:
SAR

Distribution:
- ☐ 2 = Type II Full Cutoff
- ☐ 3 = Type III Full Cutoff
- ☐ 4 = Type IV Full Cutoff
- ☐ 5 = Type V Square Full Cutoff
- ☐ L = Type L Left Full Cutoff
- ☐ R = Type R Right Full Cutoff

Light Distribution:

Type II | Type III | Type IV Forward Throw

Type V Square | Type R Right | Type L Left

Electrical Module

Cat. Nos. for Electrical Modules available:

60L xK x

Source:
60L = 60 LED's

Color Temperature:[1]
- ☐ 4K = 4000K
- ☐ 5K = 5000K
- ☐ L2K = 580nm - Amber

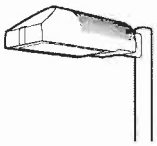
Voltage:
- ☐ 120 = 120V
- ☐ 208 = 208V
- ☐ 240 = 240V
- ☐ 277 = 277V
- ☐ 347 = 347V [2]
- ☐ 480 = 480V [2]

[1]3000K is also available on an "Engineered-to-Order" (ETO) basis.
[2]Due to current unavailability of 347V and 480V drivers, specification of these voltages may feature an integral step-down transformer.

Finish
TGIC powder coat.

Color:	Black	Dark Bronze	Light Gray	Stealth Gray	Platinum Silver	White	Custom Color[1]
Cat. No.:	☐ **BL**	☐ **DB**	☐ **LG**	☐ **SG**	☐ **PS**	☐ **WH**	☐ **CC**

[1]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____



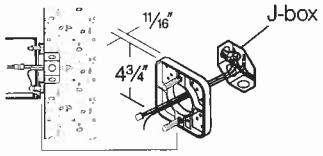
Optional Features

Wall Mounting
Cat. No. ☐ **1W**
☐ **No Option**

Select from Mounting on page **2**.

Fixture mounts to 3" or 4" junction boxes by a cast aluminum adapter plate with fixture mounting bolts.

NOTE: Junction box in wall must provide adequate fixture support. See NEC sections 370-13, 17 and 410-14, 16. Quick-disconnect plug and wiring are provided to allow field connections prior to fixture mounting.

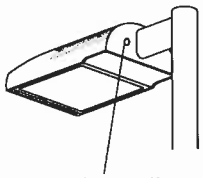


Wall mount using adapter plate
3" or 4" J-box in wall (by others)

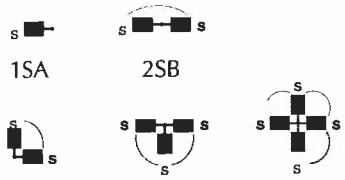
Photocell Control
Cat. No. **(See right)**
☐ **No Option**

Fixture supplied with an internal photocell with the sensor on the fixture end facing the pole. For multiple-fixture pole mountings, one fixture has a photocell to operate the others. Not available if wall mounted **(1W)**.

Cat. No.	Line Volts:
☐ **A-30**	120V
☐ **A-31**	208V
☐ **A-32**	240V
☐ **A-33**	277V
☐ **A-35**	347V
☐ **A-34**	480V


Photocell Sensor

Mounting Configuration:
s – Fixture with Photocell Sensor
S – slave unit(s)
No fixture wattage limit.

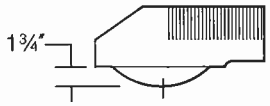


Dimming Controls

The Archetype LED driver is a 0-10V dimming interface, allowing 0-100% illumination output when synchronized with a control and dimming system, provided by others. Kim Lighting is working with several control system manufacturers to develop a variety of proven turnkey solutions to meet any application's need. Kim Lighting will advise availability of complete control packages, and even two-way monitoring systems, once they have been tested and exceed Kim's high quality standards.

Convex Glass Lens
Cat. No. ☐ **CGL**
☐ **No Option**

The 3/16" thick clear convex tempered glass lens replaces the standard flat glass lens. Provides increased lens presence and provides a subtle improvement in uniformity where pole spacing is extreme. Increases effectiveness of houseside shielding.

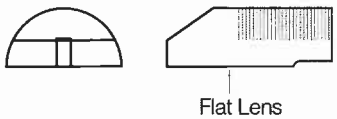


Convex Glass Lens

Polycarbonate Lens
Cat. No. ☐ **LS**
☐ **No Option**

Fixture supplied with a one-piece flat, clear, UV stabilized polycarbonate, fully gasketed, replacing the standard tempered glass lens.

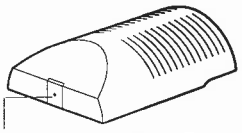
CAUTION: Use only when vandalism is anticipated to be high.


Flat Lens

Tamper-Resistant Latch
Cat. No. ☐ **TL**
☐ **No Option**

Standard die-cast latch is provided with a captive 10-32 stainless steel flat socket-head screw to prevent unauthorized opening.

NOTE: Required only for vandal protection in locations where fixtures can be reached by unauthorized persons.


Tamper-Resistant Latch

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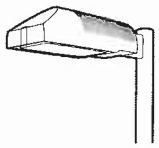


Optional Features

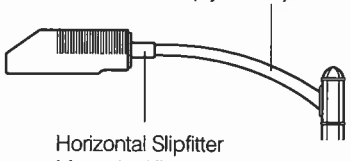
Fusing
Cat. No. **(see right)**
☐ **No Option**

Line Volts: 120V 208V 240V 277V 347V 480V
Cat. No.: ☐ **SF** ☐ **DF** ☐ **DF** ☐ **SF** ☐ **SF** ☐ **DF**


Single Fuse

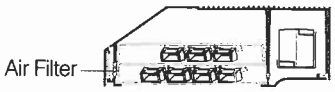
Horizontal Slipfitter Mount
Cat. No. ☐ **HSF**
☐ **No Option**

Replaces standard mounting arm with a slipfitter which allows fixture to be mounted to a horizontal pole davit-arm with 2″ pipe-size mounting end (2⅜″ O.D.). Cast aluminum slipfitter with set screw for an up or down 5° adjustment lock. Bolts to housing from inside the electrical compartment using mounting holes for the standard support arm. Davit-arm must be field drilled at a set screw location to insure against fixture rotation. Finished to match fixture and arm.



Special Options for Street Lighting
Cat. No. ☐ **AF**
☐ **No Option**

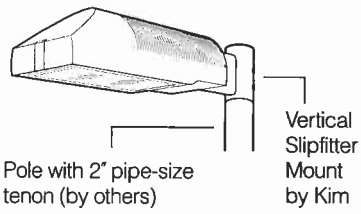
Air Filter (AF): Allows for ventilation through the optical chamber, filtering all air particles above 500 microns. Assembly mounted on solid wall between optical compartment and latch cavity.



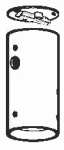
Vertical Slipfitter Mounts
Cat. No. includes Mounting
Cat. No. **(See right)**
☐ **No Option**

Allows fixture with standard support arm to be mounted to poles having a 2″ pipe-size tenon (2⅜″ O.D. x 4½″ min. length). All mounting configurations can be used (1SA, 2SB, 2SL, 3ST, 3SY, 4SC). 4″ square or round die-cast aluminum with flush cap, secured by four ⅜″ stainless steel set point allen screws, finished to match fixture and arm.

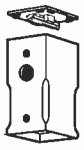
NOTE: 3SY only available on round slipfitter.



Cat. No.
☐ **VSF-1SA**
☐ **VSF-2SB**
☐ **VSF-2SL**
☐ **VSF-3ST**
☐ **VSF-3SY**
☐ **VSF-4SC**

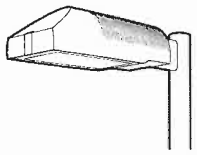

Round

Stainless steel set screws


Square

Cat. No.
☐ **SVSF-1SA**
☐ **SVSF-2SB**
☐ **SVSF-2SL**
☐ **SVSF-3ST**
☐ **SVSF-4SC**

Mounting Configuration
1SA - single arm mount
2SB - 2 at 180°
2SL - 2 at 90°
3ST - 3 at 90°
3SY - 3 at 120°
4SC - 4 at 90°



Lumen Data

Spectroradiometric			
	580nm - Amber Average	4000K Average	5000K Average
Correlated Color Temp. CCT (K)	N/A	N/A	5081
Color Rendering Index (CRI)	N/A	N/A	67.5
Power Factor	N/A	N/A	99.3

L70 Data (Calculated)
60,000

Electrical Drive Current		
Volts - AC	Amps - AC	System Watts
120	.55	66
208	.32	66
240	.28	66
277	.24	66
347	.19	66
480	.14	66

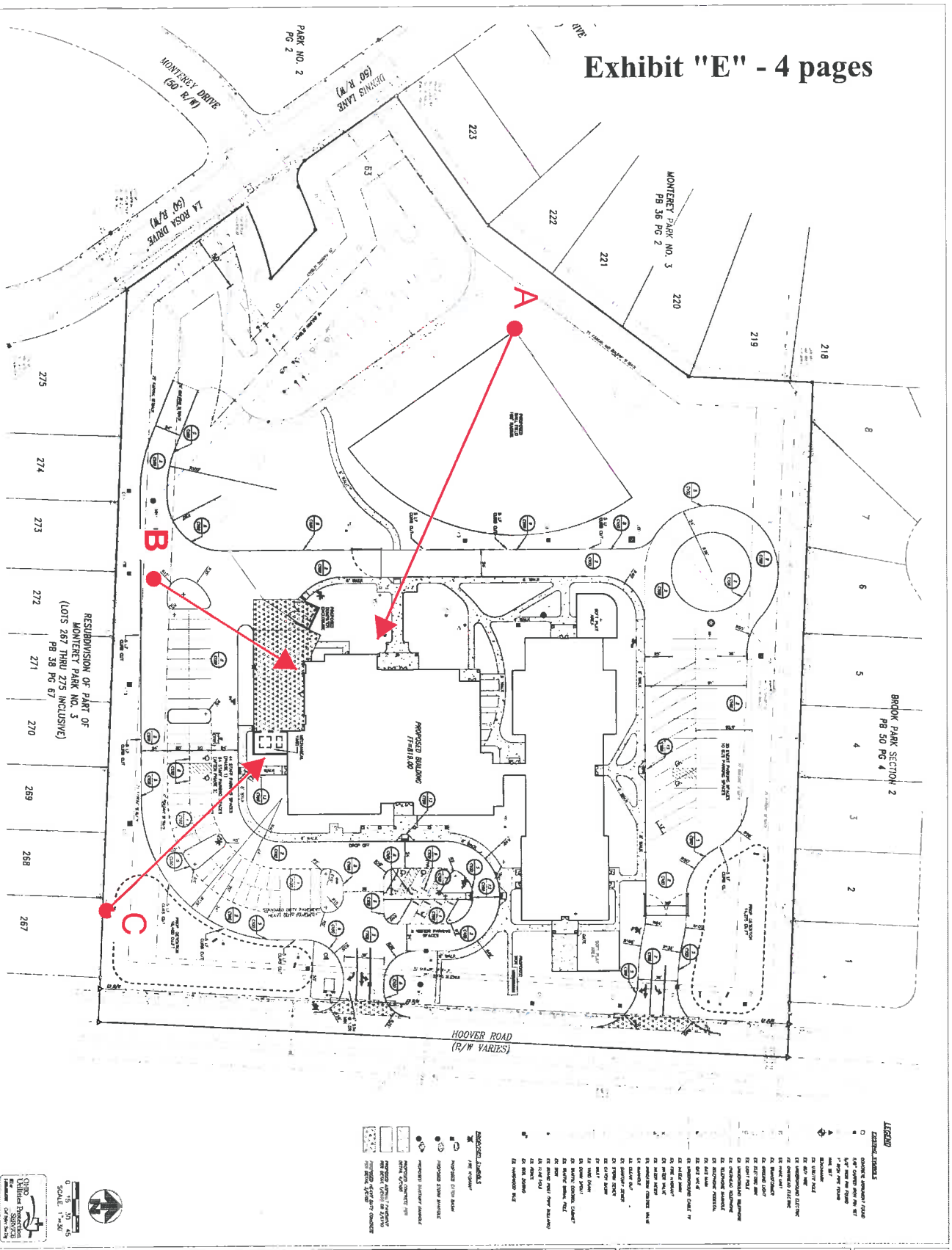
B.U.G. Rating (TM15) in Lumens wher B = Backlight, U = Uplight, G = Glare				
Type II	Type III	Type IV	Type V	Type L/R
B2 U0 G2	B1 U0 G1	B0 U0 G2	B3 U0 G1	B1 U0 G1

Absolute Lumens					
Temperature	Type II	Type III	Type IV	Type V	Type L/R
580nm - Amber	N/A	N/A	N/A	N/A	N/A
4000K	3448	3487	3643	3388	3301
5000K	4205	4253	4443	4132	4026

LED performance and lumen output continues to improve at a rapid pace. Log onto www.kimlighting.com to download the most current photometric files from Kim Lighting's IES File Library. For custom optics and color temperature configurations, contact factory.
*Data is prorated from 5000K IES files.

8/24/2012 10:06:03 AM

Exhibit "E" - 4 pages



SOUTH-WESTERN CITY SCHOOL DISTRICT
MONTEREY ELEMENTARY SCHOOL
2584 Dennis Lane, Grove City, OH 43123
SOUTH-WESTERN CITY SCHOOL DISTRICT
3805 Marlane Drive, Grove City, OH 43123

SHP LEADING DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION

LOCATION PLAN PHASE 2

DATE 12/7/2012
COMM NO 20120455

C104

Camera View A

MONTEREY ELEMENTARY SCHOOL

2584 Dennis Lane, Grove City, Ohio 43123

SOUTH-WESTERN CITY SCHOOL DISTRICT

3805 Marlane Drive, Grove City, OH 43123

SHP
LEADING DESIGN

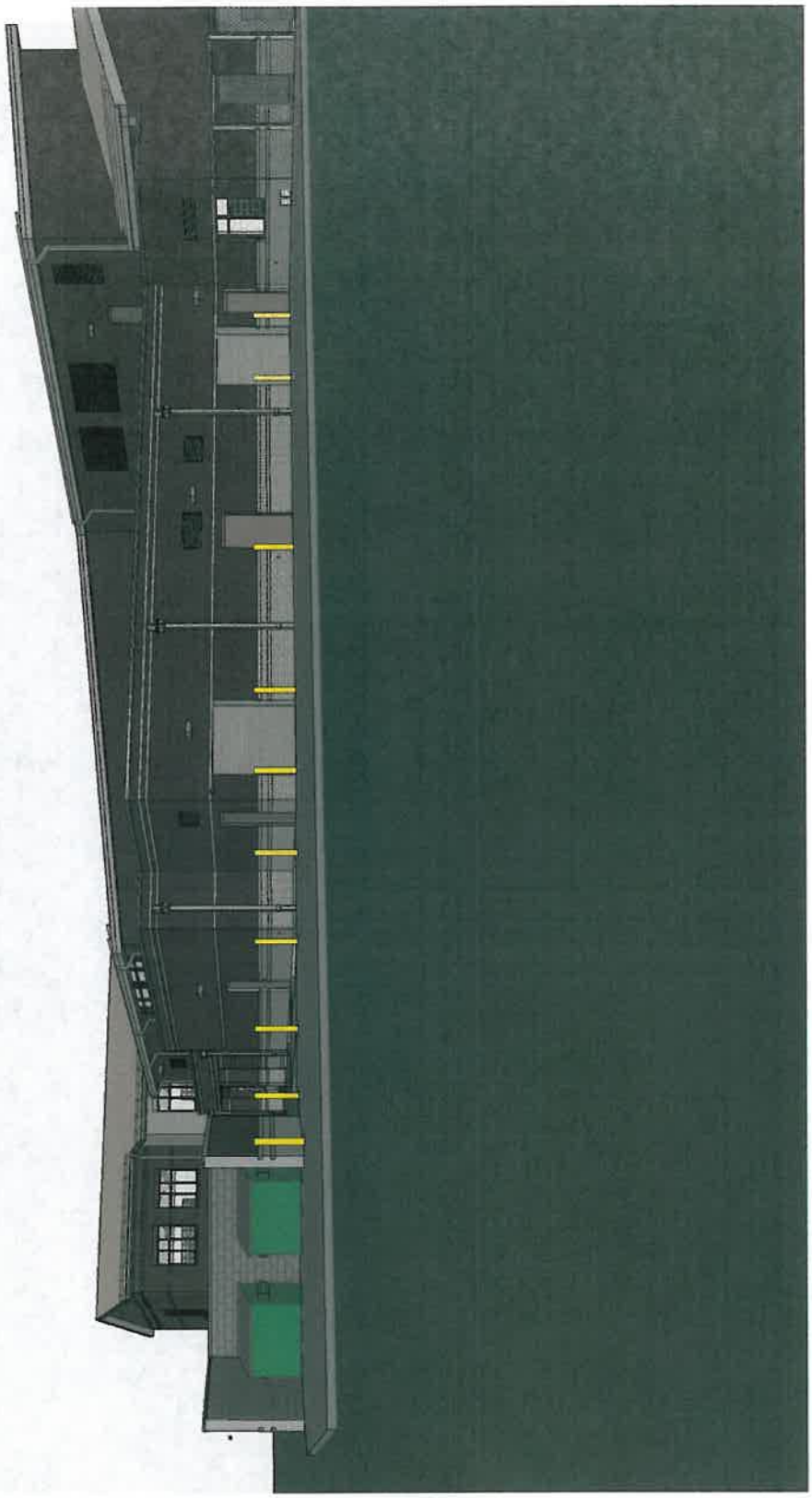
4805 Montgomery Road, Suite 400, Cincinnati, Ohio 45212, 513-381-2112
236 High Street, Hamilton, Ohio 45011, 513-863-5441
250 Civic Center Drive, Suite 200, Columbus, Ohio 43215, 614-223-2124
1675 Broadway, Suite 1300, Denver, Colorado 80202, 303-209-7866

DATE	01/17/13
COMM NO	2012014.03

Z000-A

Camera View B

From this location on the project site the rooftop equipment is concealed by the parapet.



MONTEREY ELEMENTARY SCHOOL

2584 Dennis Lane, Grove City, Ohio 43123

SOUTH-WESTERN CITY SCHOOL DISTRICT

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SHP LEADING DESIGN

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250 Civic Center Drive, Suite 200, Columbus, Ohio 43215, 614-223-2124

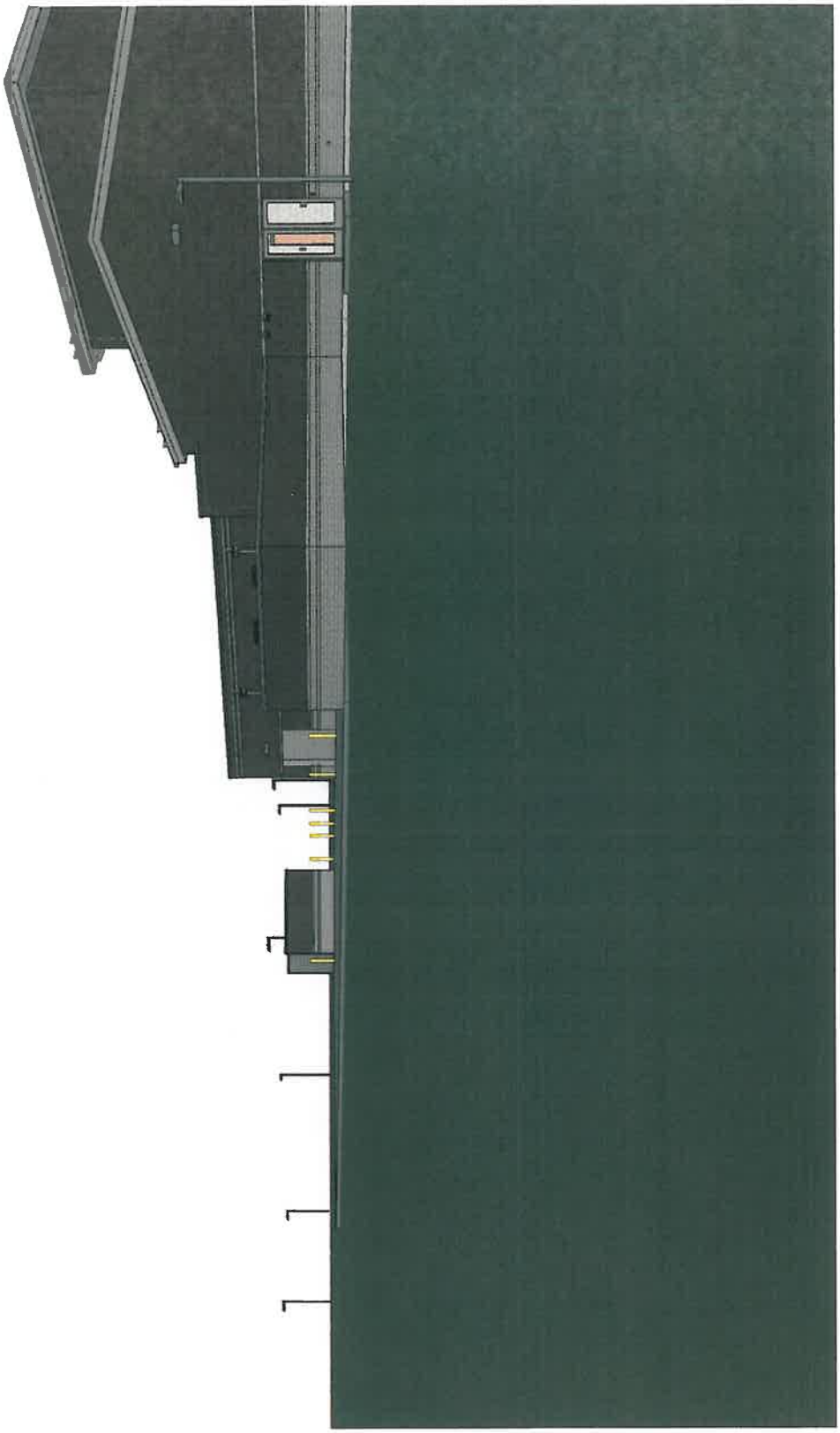
1675 Broadway, Suite 1300, Denver, Colorado 80202, 303-209-7866

DATE	01/17/13
COMM NO	2012014.03

Z000-B

Camera View C

From this location on the project site the rooftop equipment is concealed by the parapet.



MONTEREY ELEMENTARY SCHOOL

2584 Dennis Lane, Grove City, Ohio 43123

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DATE	01/17/13
COMM NO	2012014.03

Z000-C

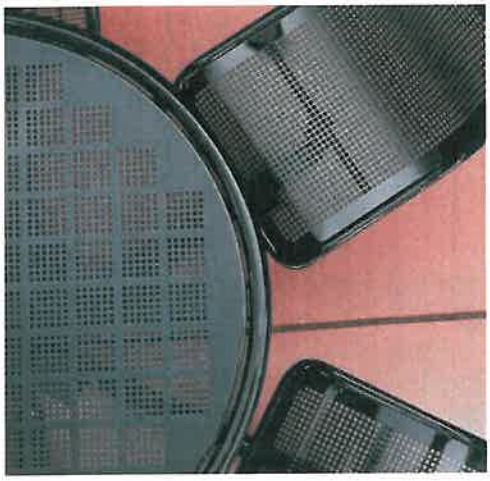
SHP
LEADING DESIGN

Exhibit "D" - 2 pages

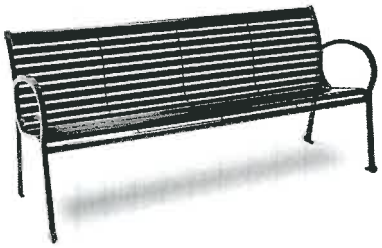
January 16, 2013

Site Furnishings

Tables – 3 seat Carousel
Manufacturer: Landscape Forms
Color: Bronze



Benches - Scarborough
Manufacturer: Landscape Forms
Color: Bronze



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513.863.5596 fax

250 Civic Center Drive Suite 200
Columbus, Ohio 43215
614.223.2124 main
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Steed Hammond Paul Inc

SHP
LEADING DESIGN

Bike Racks - Flo
Manufacturer: Landscape Forms
Color: Bronze

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