2006-A-2

2002-0081

81 Riverside St.

Indoor Pool/Lobby

Holiday Inn

add to Spreadsheet

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
Planning Copy

2002-0081
Application I. D. Number

03/27/2002
Application Date

Holiday Inn-Port., West
Applicant

81 Riverside Drive, Portland, ME 04103
Applicant's Mailing Address

Indoor Pool, Lobby Addition
Project Name/Description

John Leasure
Consultant/Agent

81 - 81 Riverside Ave, Portland, Maine
Address of Proposed Site

Applicant Ph: (207) 774-5601 Agent Fax:
Applicant or Agent Daytime Telephone, Fax

266 A002001
Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ☐ New Building ☑ Building Addition ☐ Change Of Use ☐ Residential ☐ Office ☑ Retail
☐ Manufacturing ☐ Warehouse/Distribution ☐ Parking Lot ☐ Other (specify)

5,901 sq. ft.	242,050 sq. ft.	B4
Proposed Building square Feet or # of Units	Acreage of Site	Zoning

Check Review Required:

☑ Site Plan (major/minor)
☐ Subdivision # of lots
☐ PAD Review
☐ 14-403 Streets Review
☐ Flood Hazard
☐ Shoreland
☐ HistoricPreservation
☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)
☐ Zoning Variance
☐ Other

Fees Paid: Site Plan $400.00 Subdivision Engineer Review Date 03/28/2002

Planning Approval Status:

Reviewer Kandi Talbot

☐ Approved
☑ Approved w/Conditions See Attached
☐ Denied

Approval Date 05/22/2002 Approval Expiration 05/22/2003 Extension to ☑ Additional Sheets Attached

☑ OK to Issue Building Permit Kandi Talbot (signature) (date)

Performance Guarantee ☐ Required* ☐ Not Required

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☐ Performance Guarantee Accepted	date	amount	expiration date
☐ Inspection Fee Paid	date	amount	
☐ Building Permit Issue	date		
☐ Performance Guarantee Reduced	date	remaining balance	signature
☐ Temporary Certificate of Occupancy	date	☐ Conditions (See Attached)	expiration date
☐ Final Inspection	date	signature	
☐ Certificate Of Occupancy	date		
☐ Performance Guarantee Released	date	signature	
☐ Defect Guarantee Submitted	submitted date	amount	expiration date
☐ Defect Guarantee Released	date	signature	

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
DRC Copy

2002-0081
Application I. D. Number

03/27/2002
Application Date

Holiday Inn-Port., West
Applicant

81 Riverside Drive, Portland, ME 04103
Applicant's Mailing Address

Indoor Pool, Lobby Addition
Project Name/Description

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☐ DEP Local Certification
☐ Zoning Conditional Use (ZBA/PB)
☐ Zoning Variance
☐ Other

Fees Paid: Site Plan $400.00 Subdivision Engineer Review Date 03/28/2002

DRC Approval Status:

Reviewer Sebago Technic

☑ **Approved**
☐ **Approved w/Conditions** See Attached
☐ **Denied**

Approval Date 05/22/2002 Approval Expiration 05/22/2003 Extension to ☐ Additional Sheets Attached

☑ Condition Compliance Kandi Talbot (signature) (date)

Performance Guarantee ☐ **Required*** ☐ **Not Required**

* No building permit may be issued until a performance guarantee has been submitted as indicated below

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☐ Certificate Of Occupancy	date		
☐ Performance Guarantee Released	date	signature	
☐ Defect Guarantee Submitted	submitted date	amount	expiration date
☐ Defect Guarantee Released	date	signature	

City of Portland Site Plan Application

If you or the property owner owe real estate taxes, personal property taxes or user charges on any property within the City of Portland, payment arrangements must be made before permit applications can be received by the Inspections Division.

Address of Proposed Development: 81 Riverside Street **Zone:** B-4

Total Square Footage of Proposed Structure:	**Square Footage of Lot:**
17,000 +/- s.f. of new parking	5.36 Ac. +/-

Tax Assessor's Chart, Block & Lot: Chart# Block# Lot#	**Property owner's mailing address:**	**Telephone #:**
Parcel ID: 266 A002001	Harper Hotels, Inc. P.O. Box 121, Muncie, IN 47308	774-5601

Consultant/Agent, mailing address, phone # & contact person:	**Applicant's name, mailing address, telephone #/Fax#/Pager#:**	**Project name:**
	Holiday Inn - Portland West Richard Kelly, Jr., Manager 774-5601 phone 774-2103 fax	Proposed Parking: Holiday Inn - West

Proposed Development (check all that apply)

___New Building ___Building Addition ___Change of Use ___Residential ___Office ___Retail
___Manufacturing ___Warehouse/Distribution _X_Parking lot
___Subdivision ($500.00) + amount of lots____ ($25.00 per lot) $_____
___Site Location of Development ($3,000.00)
(except for residential projects which shall be $200.00 per lot_____)
___Traffic Movement ($1,000.00) ___Stormwater Quality ($250.00)
___Section 14-403 Review ($400.00 + $25.00 per lot)
___Other_____

Major Development (more than 10,000 sq. ft.)

___Under 50,000 sq. ft. ($500.00)
___50,000 - 100,000 sq. ft. ($1,000.00)
___Parking Lots over 100 spaces ($1,000.00)
___100,000 - 200,000 sq. ft. ($2,000.00)
___200,000 - 300,000 sq. ft. ($3,000.00)
___Over 300,000 sq. ft. ($5,000.00)
___After-the-fact Review ($1,000.00 + applicable application fee)

Minor Site Plan Review

_X_ Less than 10,000 sq. ft. ($400.00)
___After-the-fact Review ($1,000.00 + applicable application fee)

Plan Amendments

___Planning Staff Review ($250.00)
___Planning Board Review ($500.00)

- Please see next page -

Who billing will be sent to: (Company, Contact Person, Address, Phone #)

Holiday Inn, Portland West
Richard Kelly, Jr., Manager
81 Riverside Street
Portland, ME 04103-1098
774-5601

Submittals shall include (9) separate folded packets of the following:

a. **copy of application**
b. **cover letter stating the nature of the project**
c. **site plan containing the information found in the attached sample plans check list**

Amendment to Plans: Amendment applications should include 6 separate packets of the above (a, b, & c)
ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

Section 14-522 of the Zoning Ordinance outlines the process, copies are available at the counter at .50 per page (8.5 x11) you may also visit the web site: ci.portland.me.us chapter 14

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of ~~applicant~~ agent:	**Date:** 09-18-03

This application is for site review ONLY, a building Permit application and associated fees will be required prior to construction.

Sebago Technics
Engineering Expertise You Can Build On

sebagotechnics.com
One Chabot Street
P.O. Box 1339
Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

September 17, 2003
03120

Ms. Sarah Hopkins
City of Portland
389 Congress Street
Portland, ME 04101

Proposed Parking Area, Holiday Inn – West, Riverside Street, Portland, Maine

Dear Ms. Hopkins:

On behalf of the applicant, Holiday Inn – West, we have prepared this Site Plan submittal for staff review and approval. This submittal includes the applicant's proposal to build a total of 40 new parking spaces on the western portion of their property. We would like to thank you for meeting with us earlier this summer regarding this proposal and for bringing it in front of the Review Board for discussion purposes.

As a result of that meeting, we have revised the proposed development to include on-site detention and stormwater treatment. The proposed area of development is currently maintained as a lawn area and is at the base of a riprap embankment constructed for the M. W. Sewall, Co., Inc., Texaco gas station next door. Currently, runoff from Riverside Street runs along the road frontage of the Holiday Inn – West property and enters the property in two areas; the first being at the base of the riprap embankment and the second being the main entrance to the site. The specifics of the Riverside Street runoff flowing through the property are described in the attached Stormwater Management Report.

The design of the proposed development and the associated stormwater management is based on a request by the applicant to the City of Portland that the runoff from Riverside Street be managed by the City and not be allowed to continue to flow through the site. Given an assumed positive response to this request, the proposed development will not increase the peak rate of runoff leaving the property from the current conditions, excluding flows from Riverside Street. In addition, water treatment will be achieved by the construction of the vegetated swales/detention areas at either end of the proposed parking area.

The runoff from the new parking spaces will be collected by two vegetated swales and allowed to slowly release to the existing 12-inch PVC pipe outletting to the Maine Turnpike Authority property. Runoff from the existing parking spaces will continue to use the existing drainage system within the pavement.

The proposed parking area includes the addition of 48 parking spaces with two access ways. The construction of the access ways will remove eight existing spaces, adding a total of 40 spaces to the property. The proposed parking will allow the Holiday Inn -West to increase its overall parking capacity for the site which is needed during the peak seasons when guests are using both the hotel rooms and the conference rooms at the same time.

Currently, snow is stored on this portion of the property and will continue to be after the additional parking is constructed. Once a large enough volume of snow is present on the site, the snow will be removed via loaders and dump trucks.

With the submittal of this Site Plan package, we request the inclusion of this project on the next available agenda for the Site Plan Review Board. Please feel free to contact us with any questions or comments.

Sincerely,

SEBAGO TECHNICS, INC.

Jon H. Whitten, Jr., P.E.
Sr. Project Engineer

JHW:jhw/jc
Enc.

cc: Richard M. Kelley, Jr., Manager, Holiday Inn - West

03120

STORMWATER MANAGEMENT REPORT

Holiday Inn – West
Portland, Maine

Introduction

This report and associated calculations have been prepared in order to evaluate the pre and post-development conditions on the Holiday Inn - West property in the area of the proposed additional parking spaces. This report focuses on the development of the parking area only. The proposed parking area has been designed such that runoff is directed away from the existing drainage pipes within the existing parking areas. It has been assumed that the City of Portland will take care of the drainage along Riverside Street such that runoff will not be directed through the Holiday Inn – West property.

Pre-Development Condition

Currently, the portion of the property on which the additional parking is proposed is maintained as lawn area. A bituminous curb separates the existing parking from the lawn area. There is an existing concrete pad located near the center of the lawn area that will be removed as part of this project. Drainage from the existing parking area on the eastern side of the hotel is collected by three catch basins and allowed to outlet onto abutting land owned by the Maine Turnpike Authority. Runoff from Riverside Street currently enters the site via overland flow through two areas, the first being a riprapped channel near the entrance to the M. W. Sewall, Co., Inc. gas station leading to a catch basin in a lawn area on the Holiday Inn - West property. Second is the entrance to the hotel.

Runoff coming onto the site via the riprapped channel enters an existing pipe within the lawn area of the hotel and is allowed to flow in a southerly direction to the aforementioned outlet onto the Maine Turnpike Authority property. Runoff bypassing this system and entering the property via the main entrance to the site is directed easterly through the existing parking area and collected by the three catch basins.

Post-Development Condition

The proposed improvements to the property include adding additional paved parking spaces in the existing lawn area of the property. A bituminous curb will separate the existing parking from the proposed parking and will ultimately separate the runoff from the two parking areas. Two drainage ditches are proposed to collect runoff from the proposed parking area. These areas will collect runoff, provide some nutrient uptake and settlement time for the runoff, and slowly release the runoff to the existing outlet point at the pre-development rates.

The outlet system for the ditch areas will be the existing piping system that is located within the lawn area. With the removal of the Riverside Street drainage from the property, this piping system will be adequate for the proposed peak rates of runoff from the new parking area. No additional runoff is proposed to enter the catch basins within the existing parking area.

Water Quality

Upon request from the City of Portland, water quality for the new parking area is being supply via the vegetated swales designed to collect runoff from the new parking area. These areas will provide a minimum of 25 percent removal of TSS in the runoff before releasing it to the Maine Turnpike Authority's drainage system.

Results

Table 1

Reach	2-Year Storm			10-Year Storm			25-Year Storm		
	Pre (cfs)	Post (cfs)	Diff. (cfs)	Pre (cfs)	Post (cfs)	Diff. (cfs)	Pre (cfs)	Post (cfs)	Diff. (cfs)
3R	0.69	0.61	-0.08	1.54	1.33	-0.21	1.90	1.61	-0.29

Conclusion

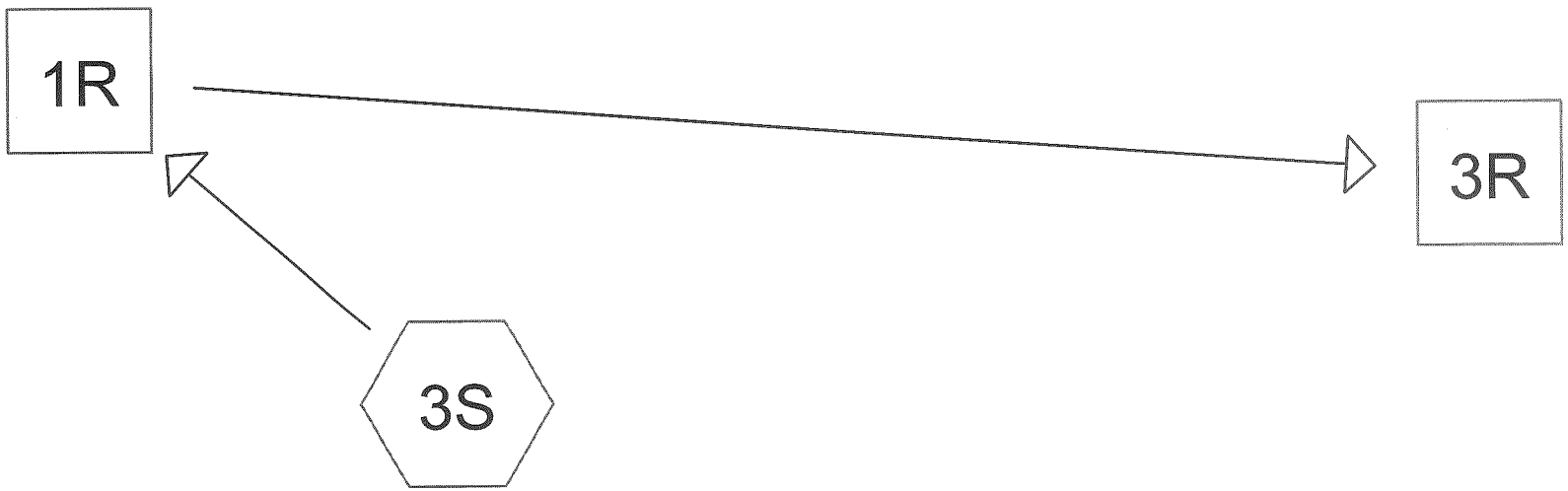
With the separation of the new parking from the existing, it allows for a design that results in an overall decrease in the peak rate of runoff leaving the site in the pre-development condition when comparing the existing lawn area to the new parking area directly. Two ditch areas collect the runoff from the new parking area and slow the peak rates of runoff to below that of what was originally leaving the lawn area. The calculations include the removal of runoff from Riverside Street in all comparisons. From the attached calculations, it is not expected that this project will significantly, adversely affect any directly adjacent downstream areas.

Prepared by

SEBAGO TECHNICS, INC.

Jon H. Whitten, Jr., P.E.
Sr. Project Engineer

JHW:jhw/jc
September 17, 2003



Subcat Reach Pond Link

Drainage Diagram for 03120 Holiday Inn-West Pre-parking
Prepared by SEBAGO TECHNICS, INC. 9/17/2003

Subcatchment 3S: (new node)

Runoff = 0.80 cfs @ 12.08 hrs, Volume= 0.053 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (sf)	CN	Description
24,000	80	>75% Grass cover, Good, HSG D

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Reach 1R: (new node)

Inflow = 0.80 cfs @ 12.08 hrs, Volume= 0.053 af
Outflow = 0.69 cfs @ 12.19 hrs, Volume= 0.053 af, Atten= 13%, Lag= 6.6 min

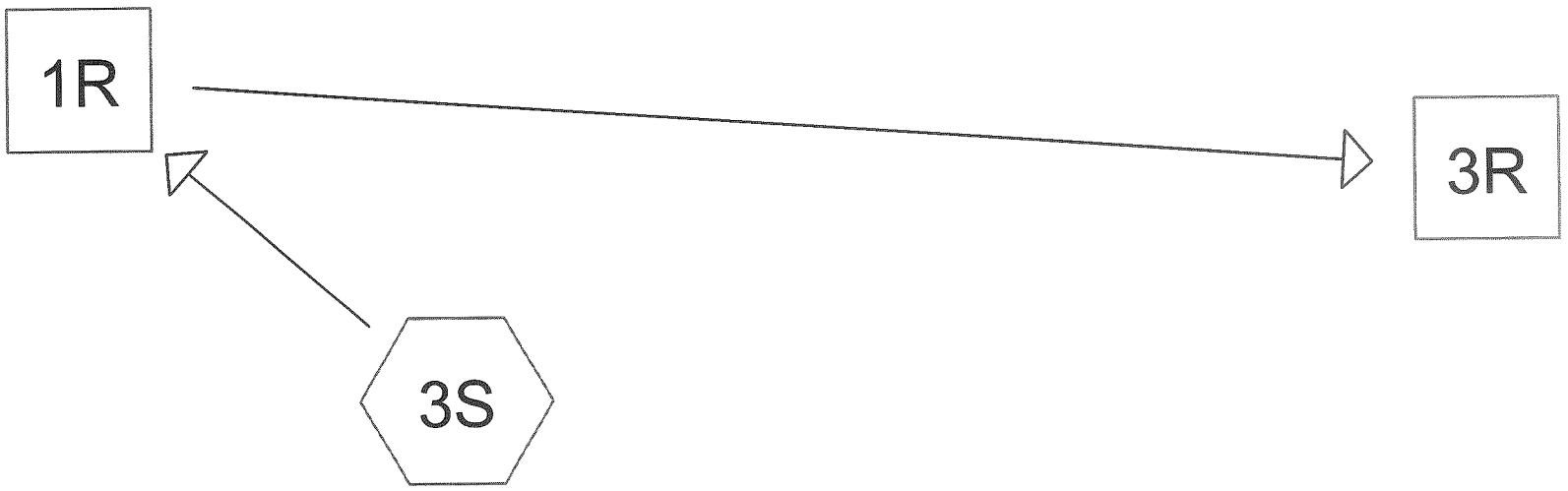
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.1 fps, Min. Travel Time= 3.8 min
Avg. Velocity = 0.9 fps, Avg. Travel Time= 8.9 min

Peak Depth= 0.44'
Capacity at bank full= 1.76 cfs
Inlet Invert= 95.00', Outlet Invert= 92.24'
12.0" Diameter Pipe n= 0.020 Length= 480.0' Slope= 0.0058 '/'

Reach 3R: (new node)

Inflow = 0.69 cfs @ 12.19 hrs, Volume= 0.053 af
Outflow = 0.69 cfs @ 12.19 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Subcat Reach Pond Link

Drainage Diagram for 03120 Holiday Inn-West Pre-parking
Prepared by SEBAGO TECHNICS, INC. 9/17/2003

Subcatchment 3S: (new node)

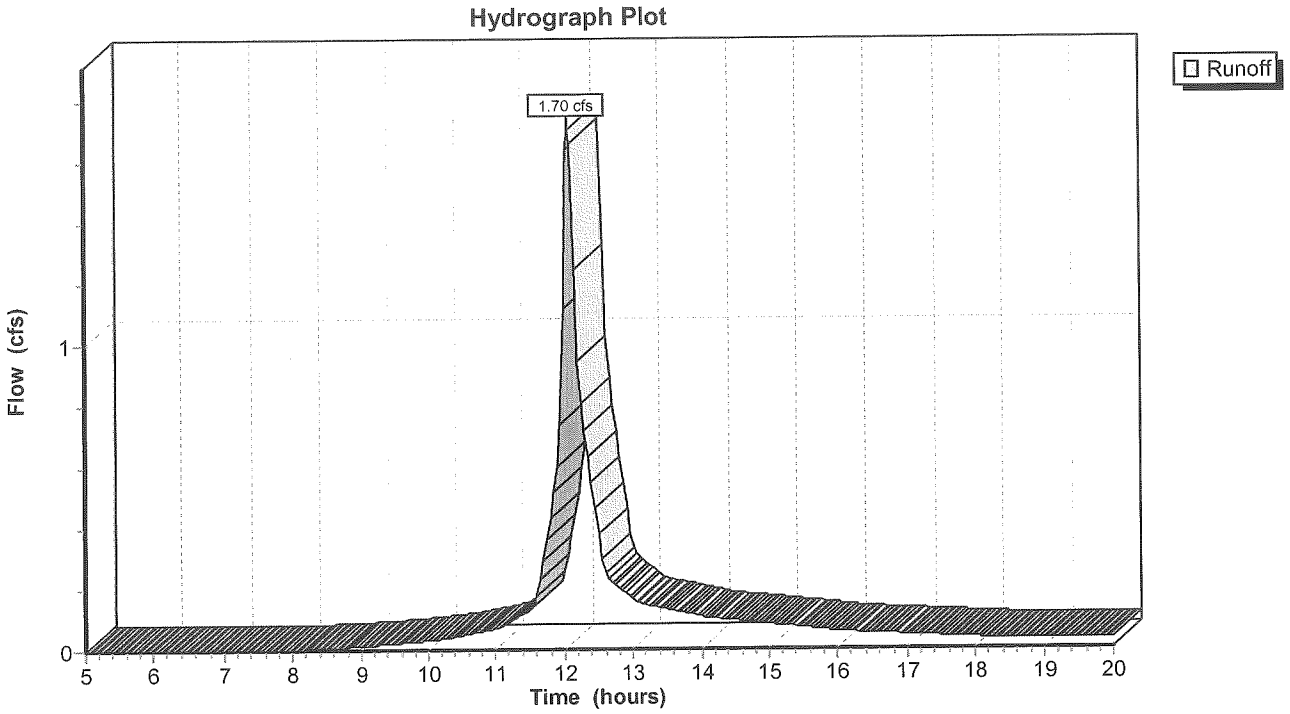
Runoff = 1.70 cfs @ 12.08 hrs, Volume= 0.113 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.70"

Area (sf)	CN	Description
24,000	80	>75% Grass cover, Good, HSG D

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: (new node)



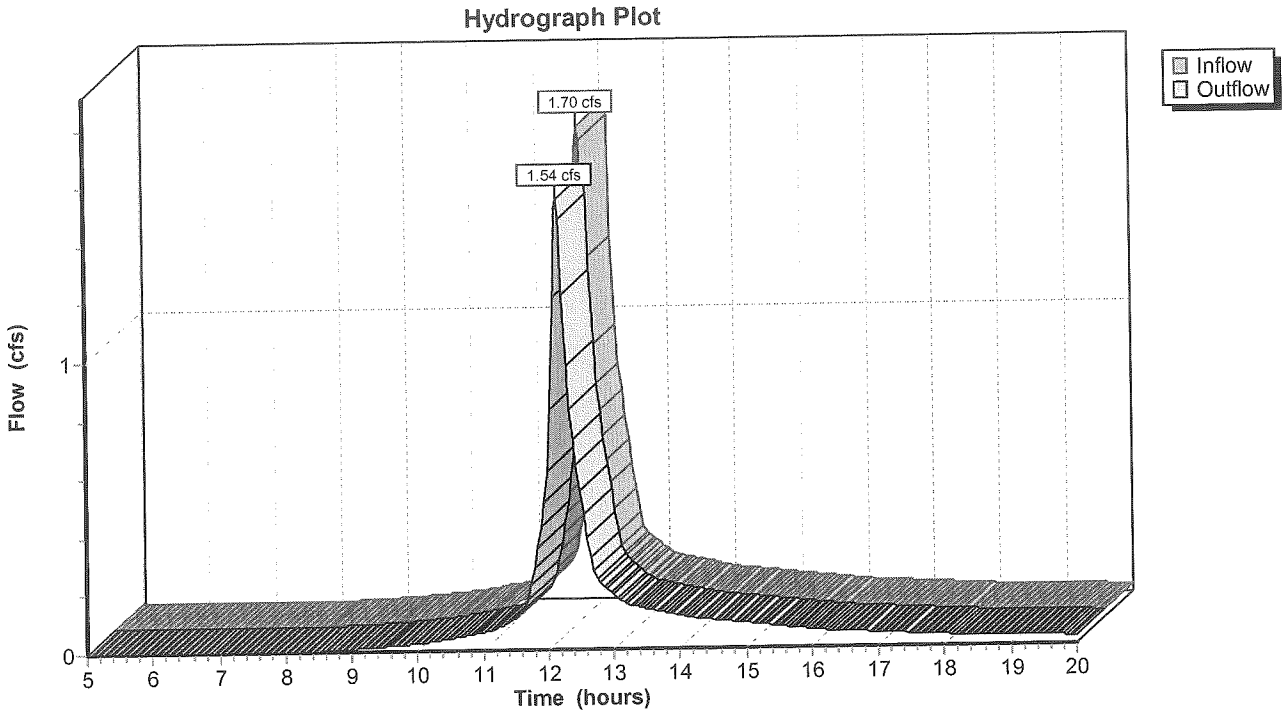
Reach 1R: (new node)

Inflow = 1.70 cfs @ 12.08 hrs, Volume= 0.113 af
Outflow = 1.54 cfs @ 12.17 hrs, Volume= 0.112 af, Atten= 9%, Lag= 5.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.5 fps, Min. Travel Time= 3.2 min
Avg. Velocity = 1.0 fps, Avg. Travel Time= 7.6 min

Peak Depth= 0.73'
Capacity at bank full= 1.76 cfs
Inlet Invert= 95.00', Outlet Invert= 92.24'
12.0" Diameter Pipe n= 0.020 Length= 480.0' Slope= 0.0058 '/'

Reach 1R: (new node)

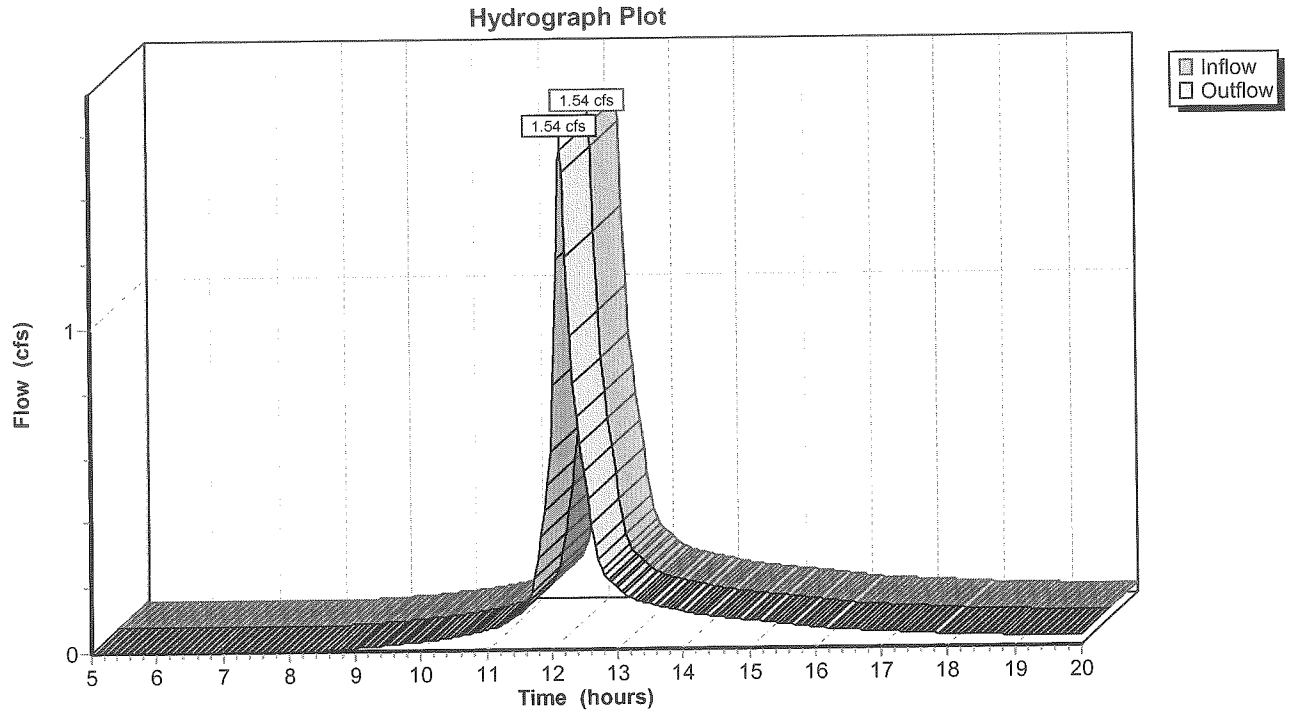


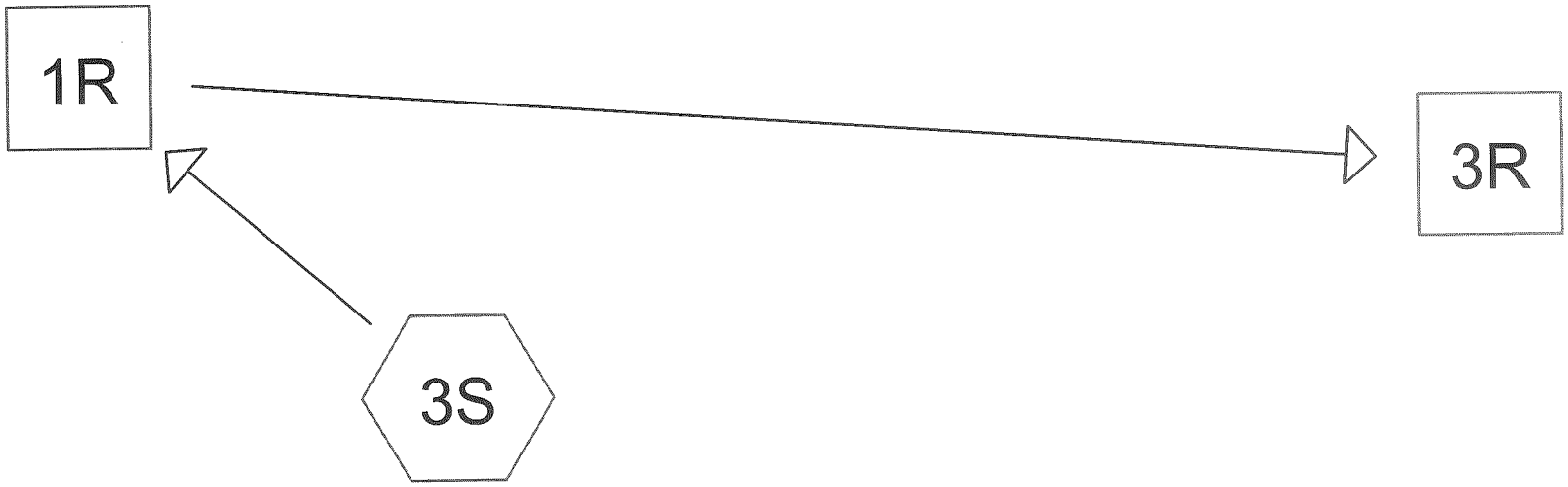
Reach 3R: (new node)

Inflow = 1.54 cfs @ 12.17 hrs, Volume= 0.112 af
Outflow = 1.54 cfs @ 12.17 hrs, Volume= 0.112 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach 3R: (new node)





Subcat Reach Pond Link

Drainage Diagram for 03120 Holiday Inn-West Pre-parking
Prepared by SEBAGO TECHNICS, INC. 9/17/2003

Subcatchment 3S: (new node)

Runoff = 2.15 cfs @ 12.08 hrs, Volume= 0.143 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.50"

Area (sf)	CN	Description
24,000	80	>75% Grass cover, Good, HSG D

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Reach 1R: (new node)

Inflow = 2.15 cfs @ 12.08 hrs, Volume= 0.143 af
Outflow = 1.90 cfs @ 12.17 hrs, Volume= 0.143 af, Atten= 11%, Lag= 5.9 min

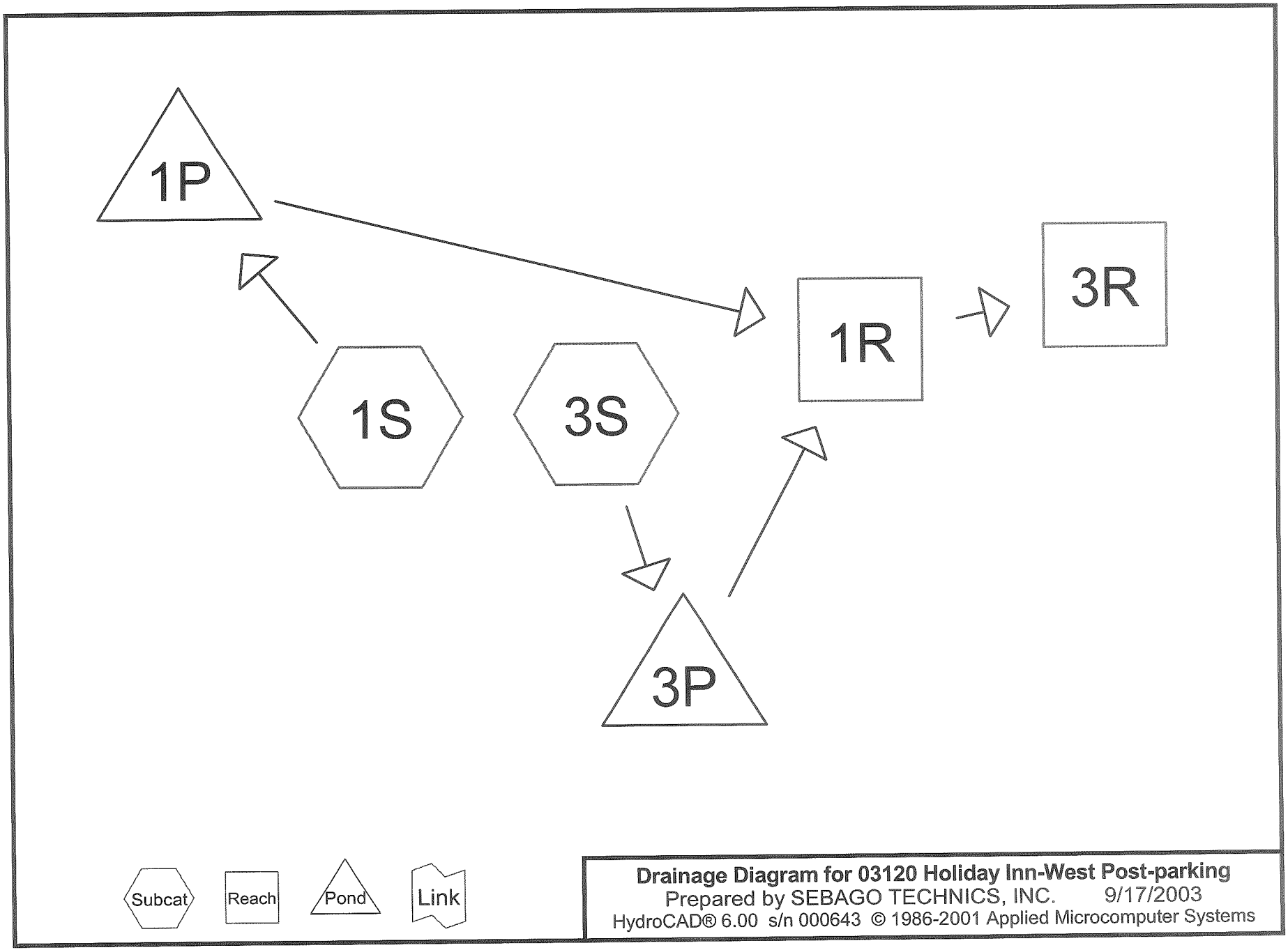
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.5 fps, Min. Travel Time= 3.2 min
Avg. Velocity = 1.1 fps, Avg. Travel Time= 7.3 min

Peak Depth= 0.93'
Capacity at bank full= 1.76 cfs
Inlet Invert= 95.00', Outlet Invert= 92.24'
12.0" Diameter Pipe n= 0.020 Length= 480.0' Slope= 0.0058 '/'

Reach 3R: (new node)

Inflow = 1.90 cfs @ 12.17 hrs, Volume= 0.143 af
Outflow = 1.90 cfs @ 12.17 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Drainage Diagram for 03120 Holiday Inn-West Post-parking
Prepared by SEBAGO TECHNICS, INC. 9/17/2003

Subcatchment 1S: (new node)

Runoff = 0.64 cfs @ 12.08 hrs, Volume= 0.043 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (sf)	CN	Description
7,000	98	
7,400	74	>75% Grass cover, Good, HSG C
14,400	86	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: (new node)

Runoff = 0.64 cfs @ 12.07 hrs, Volume= 0.048 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (sf)	CN	Description
9,600	98	new parking

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Reach 1R: (new node)

Inflow = 0.62 cfs @ 12.20 hrs, Volume= 0.089 af
Outflow = 0.61 cfs @ 12.22 hrs, Volume= 0.089 af, Atten= 0%, Lag= 1.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.5 fps, Min. Travel Time= 0.8 min
Avg. Velocity = 1.0 fps, Avg. Travel Time= 1.9 min

Peak Depth= 0.35'
Capacity at bank full= 2.30 cfs
Inlet Invert= 92.72', Outlet Invert= 92.24'
12.0" Diameter Pipe n= 0.013 Length= 115.0' Slope= 0.0042 '/'

Reach 3R: (new node)

Inflow = 0.61 cfs @ 12.22 hrs, Volume= 0.089 af
Outflow = 0.61 cfs @ 12.22 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Pond 1P: (new node)

Inflow = 0.64 cfs @ 12.08 hrs, Volume= 0.043 af
Outflow = 0.40 cfs @ 12.19 hrs, Volume= 0.042 af, Atten= 39%, Lag= 6.9 min
Primary = 0.40 cfs @ 12.19 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 94.13' Storage= 451 cf
Plug-Flow detention time= 37.4 min calculated for 0.042 af (97% of inflow)
Storage and wetted areas determined by Prismatic sections

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
93.27	300	0	0
94.00	630	339	339
95.00	1,050	840	1,179

Primary OutFlow (Free Discharge)
- 1=Culvert
  - 2=Culvert
- 3=Orifice/Grate

#	Routing	Invert	Outlet Devices
1	Primary	93.27'	**12.0" x 250.0' long Culvert** Ke= 0.500 Outlet Invert= 92.72' S= 0.0022 '/' n= 0.013 Cc= 0.900
2	Device 1	93.27'	**3.0" x 30.0' long Culvert** Ke= 0.500 Outlet Invert= 93.20' S= 0.0023 '/' n= 0.010 Cc= 0.900
3	Primary	94.00'	**6.0" Horiz. Orifice/Grate** Limited to weir flow C= 0.600

Pond 3P: (new node)

Inflow = 0.64 cfs @ 12.07 hrs, Volume= 0.048 af
Outflow = 0.22 cfs @ 12.33 hrs, Volume= 0.048 af, Atten= 65%, Lag= 15.5 min
Primary = 0.22 cfs @ 12.33 hrs, Volume= 0.048 af

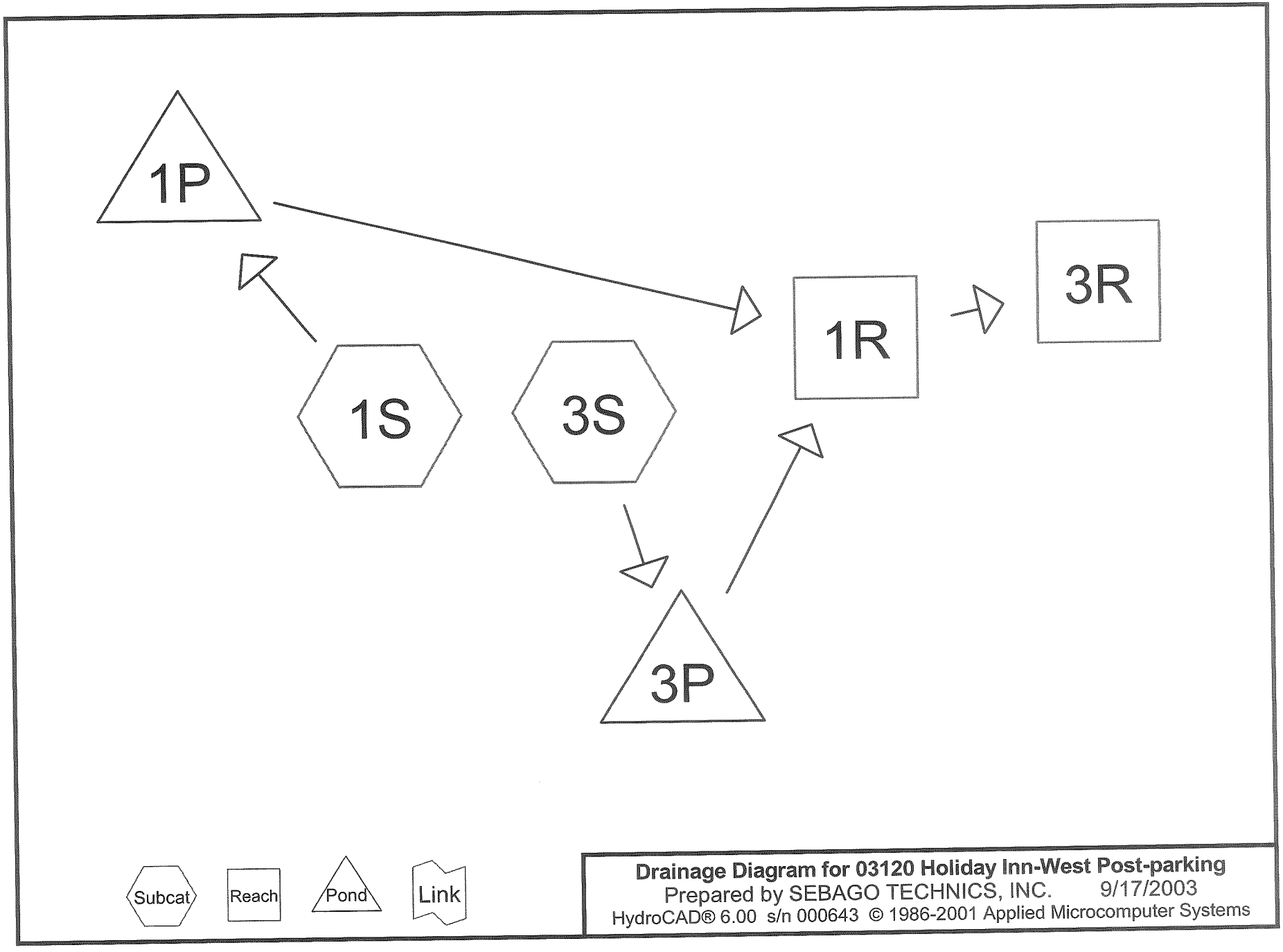
Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 94.02' Storage= 520 cf
Plug-Flow detention time= 35.9 min calculated for 0.048 af (98% of inflow)
Storage and wetted areas determined by Prismatic sections

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
93.00	300	0	0
94.00	700	500	500
95.00	1,400	1,050	1,550

Primary OutFlow (Free Discharge)
- 1=Culvert
  - 2=Orifice/Grate
  - 3=Orifice/Grate

#	Routing	Invert	Outlet Devices
1	Primary	93.00'	**6.0" x 45.0' long Culvert** Ke= 0.500 Outlet Invert= 92.72' S= 0.0062 '/' n= 0.010 Cc= 0.900
2	Device 1	93.00'	**3.0" Vert. Orifice/Grate** C= 0.600
3	Device 1	94.10'	**6.0" Horiz. Orifice/Grate** Limited to weir flow C= 0.600



Drainage Diagram for 03120 Holiday Inn-West Post-parking
Prepared by SEBAGO TECHNICS, INC. 9/17/2003
HydroCAD® 6.00 s/n 000643 © 1986-2001 Applied Microcomputer Systems

Subcatchment 1S: (new node)

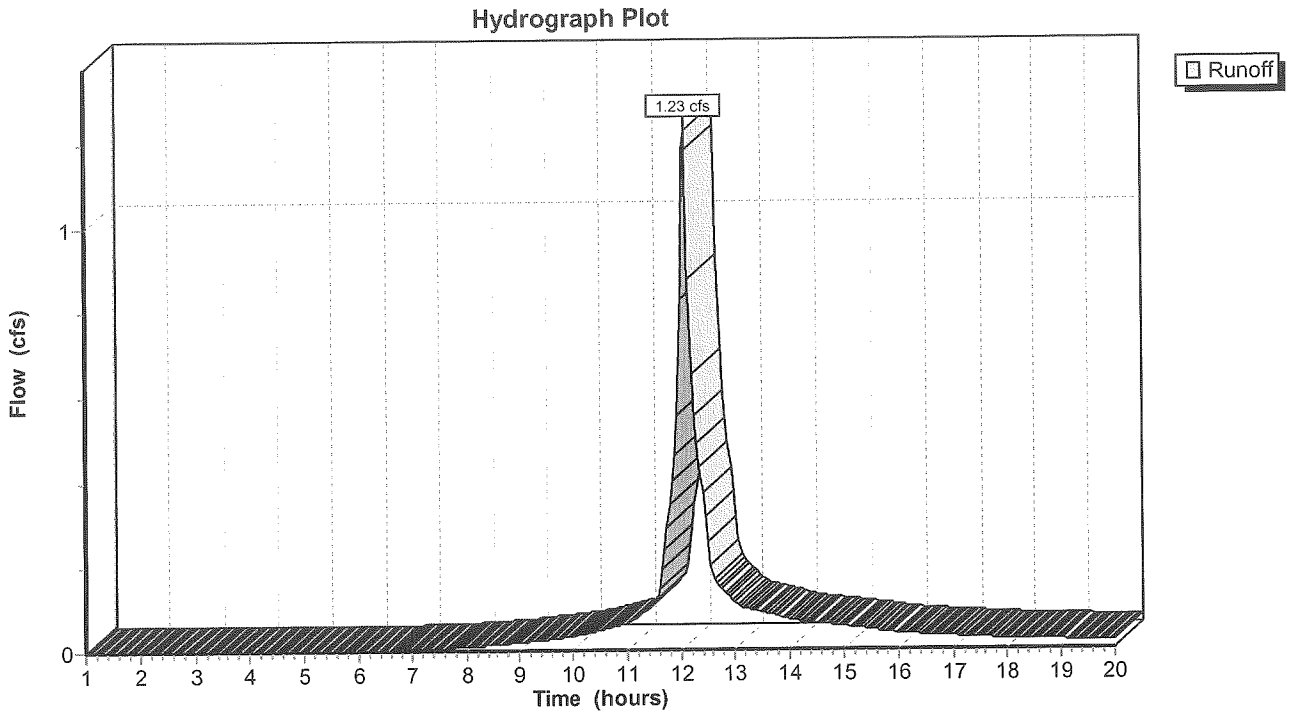
Runoff = 1.23 cfs @ 12.07 hrs, Volume= 0.083 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.70"

Area (sf)	CN	Description
7,000	98	
7,400	74	>75% Grass cover, Good, HSG C
14,400	86	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 1S: (new node)



Subcatchment 3S: (new node)

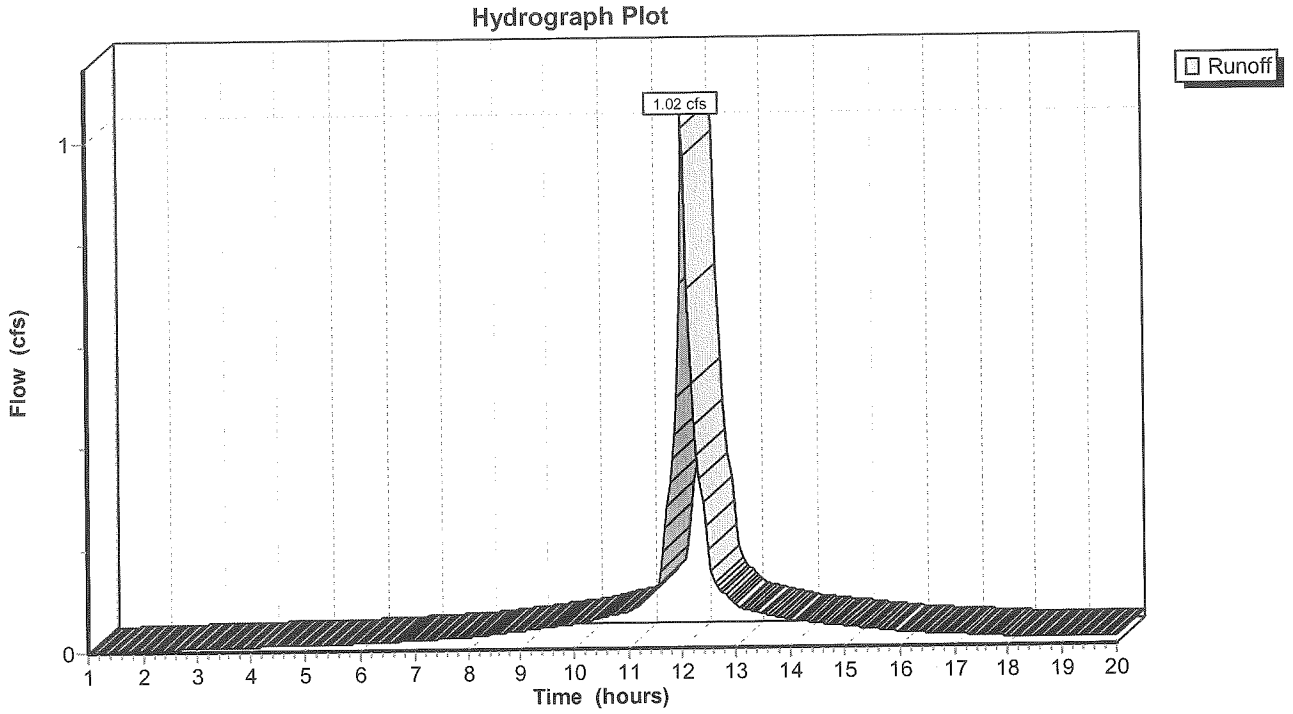
Runoff = 1.02 cfs @ 12.07 hrs, Volume= 0.078 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.70"

Area (sf)	CN	Description
9,600	98	new parking

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: (new node)



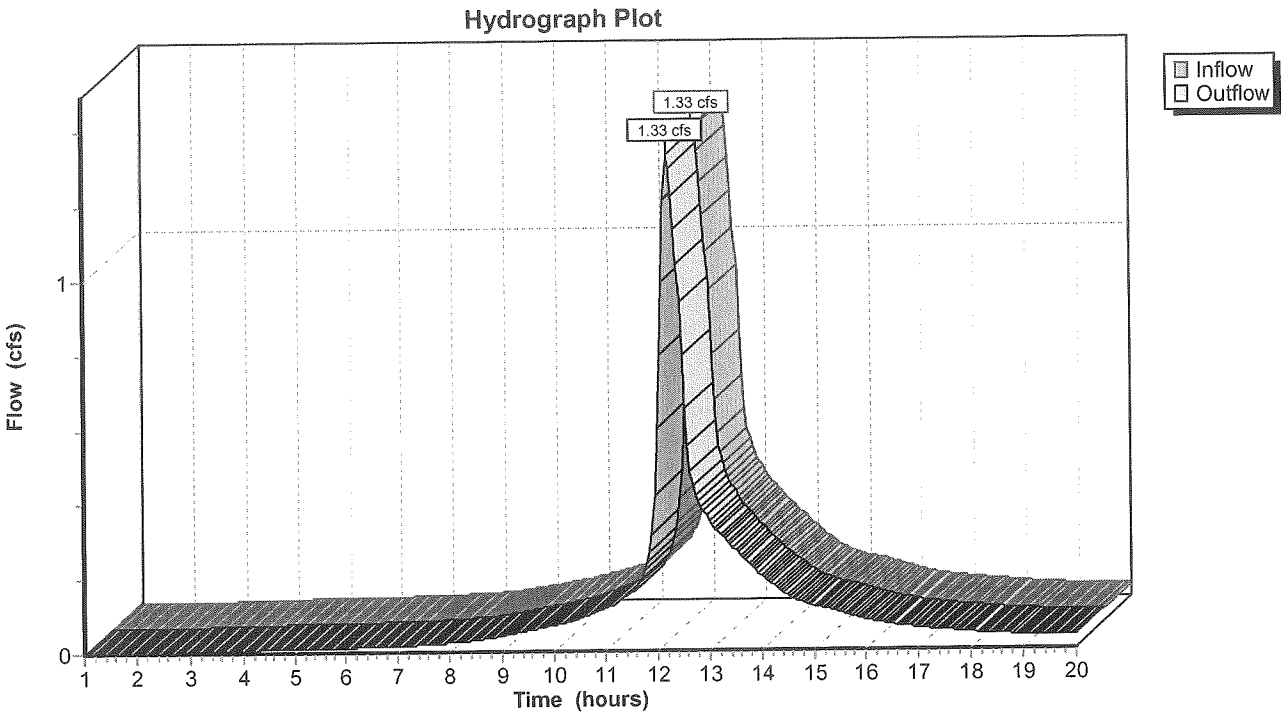
Reach 1R: (new node)

Inflow = 1.33 cfs @ 12.19 hrs, Volume= 0.158 af
Outflow = 1.33 cfs @ 12.21 hrs, Volume= 0.158 af, Atten= 0%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.0 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.2 fps, Avg. Travel Time= 1.6 min

Peak Depth= 0.55'
Capacity at bank full= 2.30 cfs
Inlet Invert= 92.72', Outlet Invert= 92.24'
12.0" Diameter Pipe n= 0.013 Length= 115.0' Slope= 0.0042 '/'

Reach 1R: (new node)

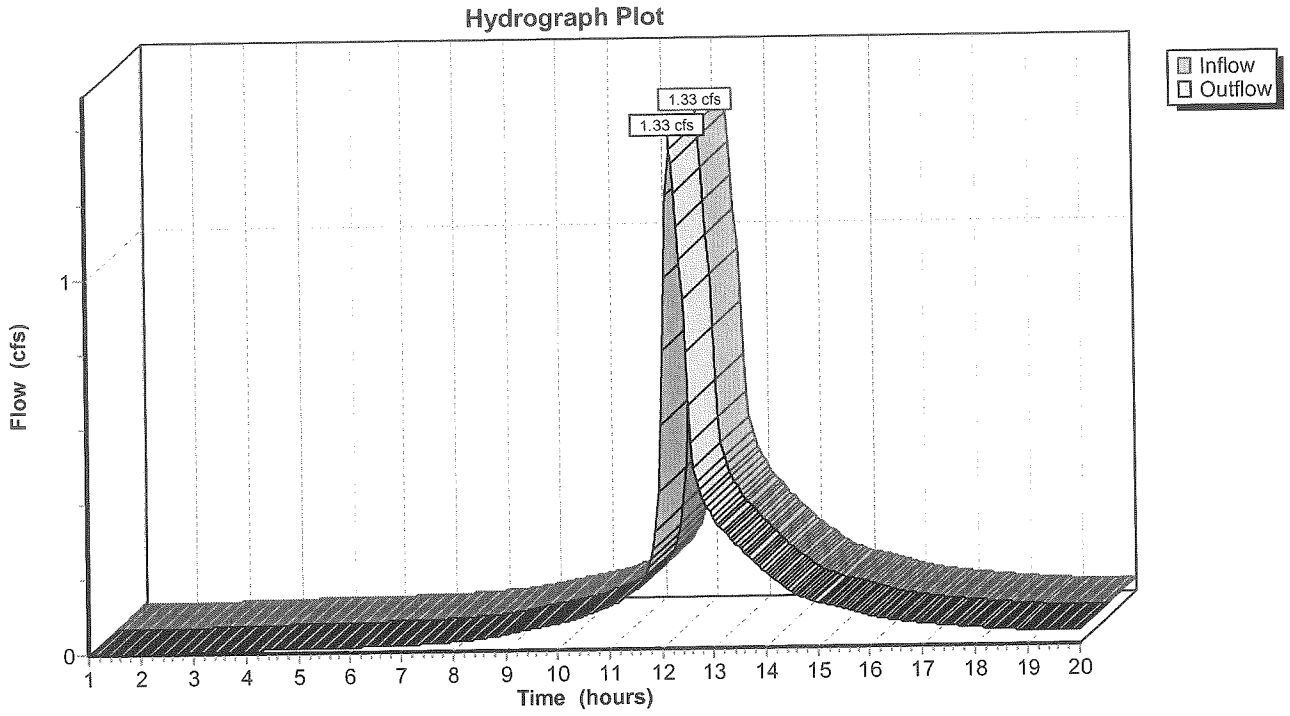


Reach 3R: (new node)

Inflow = 1.33 cfs @ 12.21 hrs, Volume= 0.158 af
Outflow = 1.33 cfs @ 12.21 hrs, Volume= 0.158 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Reach 3R: (new node)



Pond 1P: (new node)

Inflow	=	1.23 cfs @	12.07 hrs, Volume=	0.083 af	
Outflow	=	0.79 cfs @	12.17 hrs, Volume=	0.081 af,	Atten= 36%, Lag= 5.8 min
Primary	=	0.79 cfs @	12.17 hrs, Volume=	0.081 af	

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

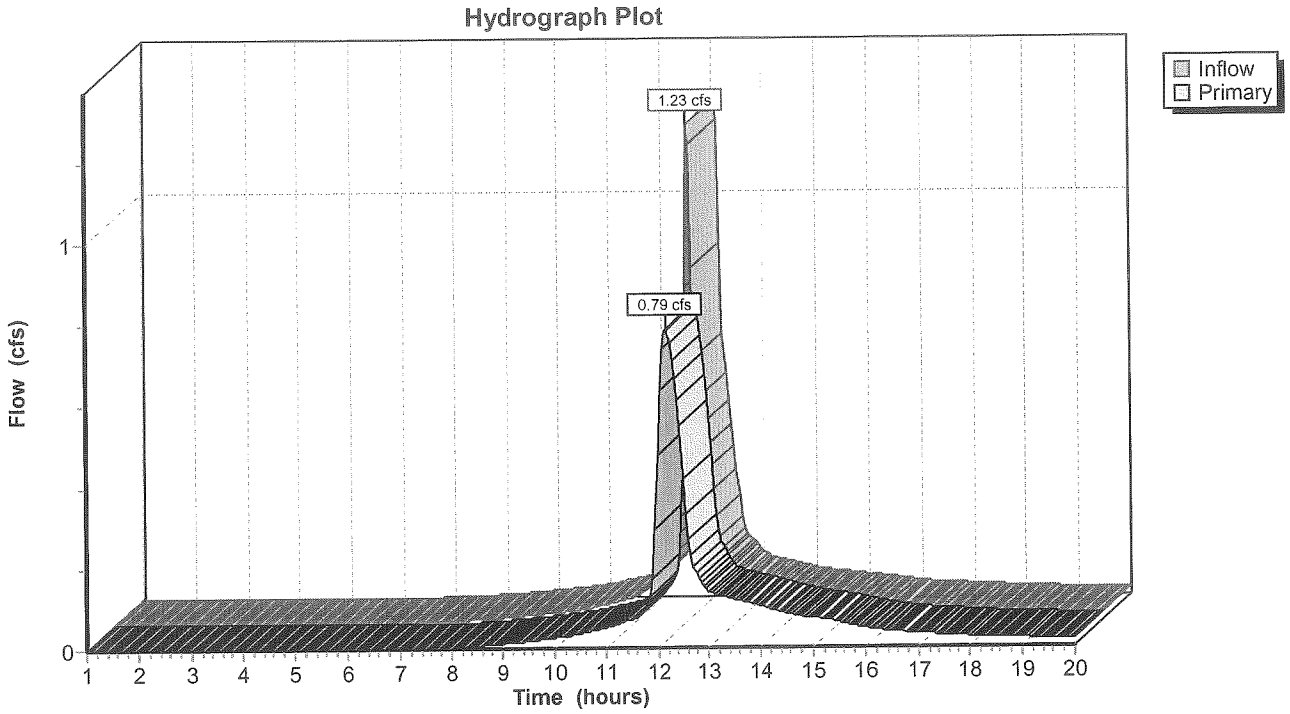
Peak Elev= 94.43' Storage= 697 cf
Plug-Flow detention time= 30.0 min calculated for 0.081 af (98% of inflow)
Storage and wetted areas determined by Prismatic sections

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
93.27	300	0	0
94.00	630	339	339
95.00	1,050	840	1,179

Primary OutFlow (Free Discharge)
- 1=Culvert
  - 2=Culvert
- 3=Orifice/Grate

#	Routing	Invert	Outlet Devices
1	Primary	93.27'	**12.0" x 250.0' long Culvert** Ke= 0.500 Outlet Invert= 92.72' S= 0.0022 '/' n= 0.013 Cc= 0.900
2	Device 1	93.27'	**3.0" x 30.0' long Culvert** Ke= 0.500 Outlet Invert= 93.20' S= 0.0023 '/' n= 0.010 Cc= 0.900
3	Primary	94.00'	**6.0" Horiz. Orifice/Grate** Limited to weir flow C= 0.600

Pond 1P: (new node)



Pond 3P: (new node)

Inflow	=	1.02 cfs @	12.07 hrs, Volume=	0.078 af
Outflow	=	0.55 cfs @	12.20 hrs, Volume=	0.077 af, Atten= 46%, Lag= 8.0 min
Primary	=	0.55 cfs @	12.20 hrs, Volume=	0.077 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

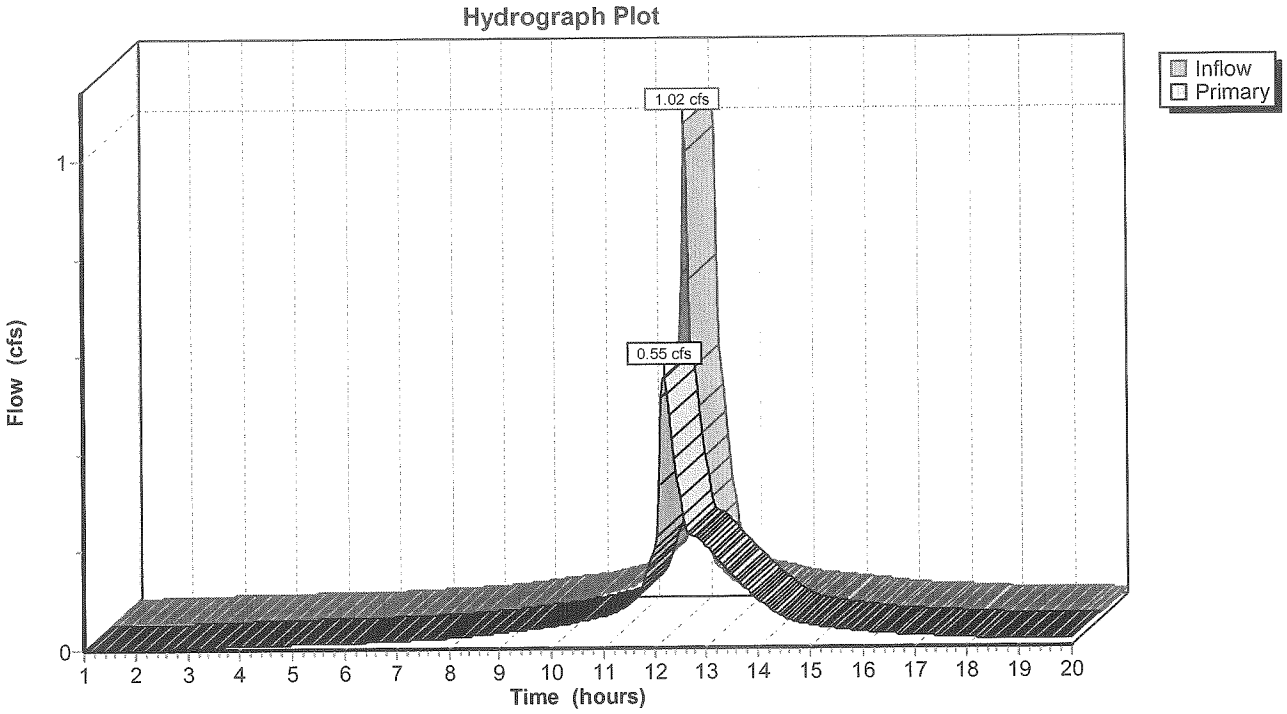
Peak Elev= 94.25' Storage= 763 cf
Plug-Flow detention time= 32.7 min calculated for 0.077 af (99% of inflow)
Storage and wetted areas determined by Prismatic sections

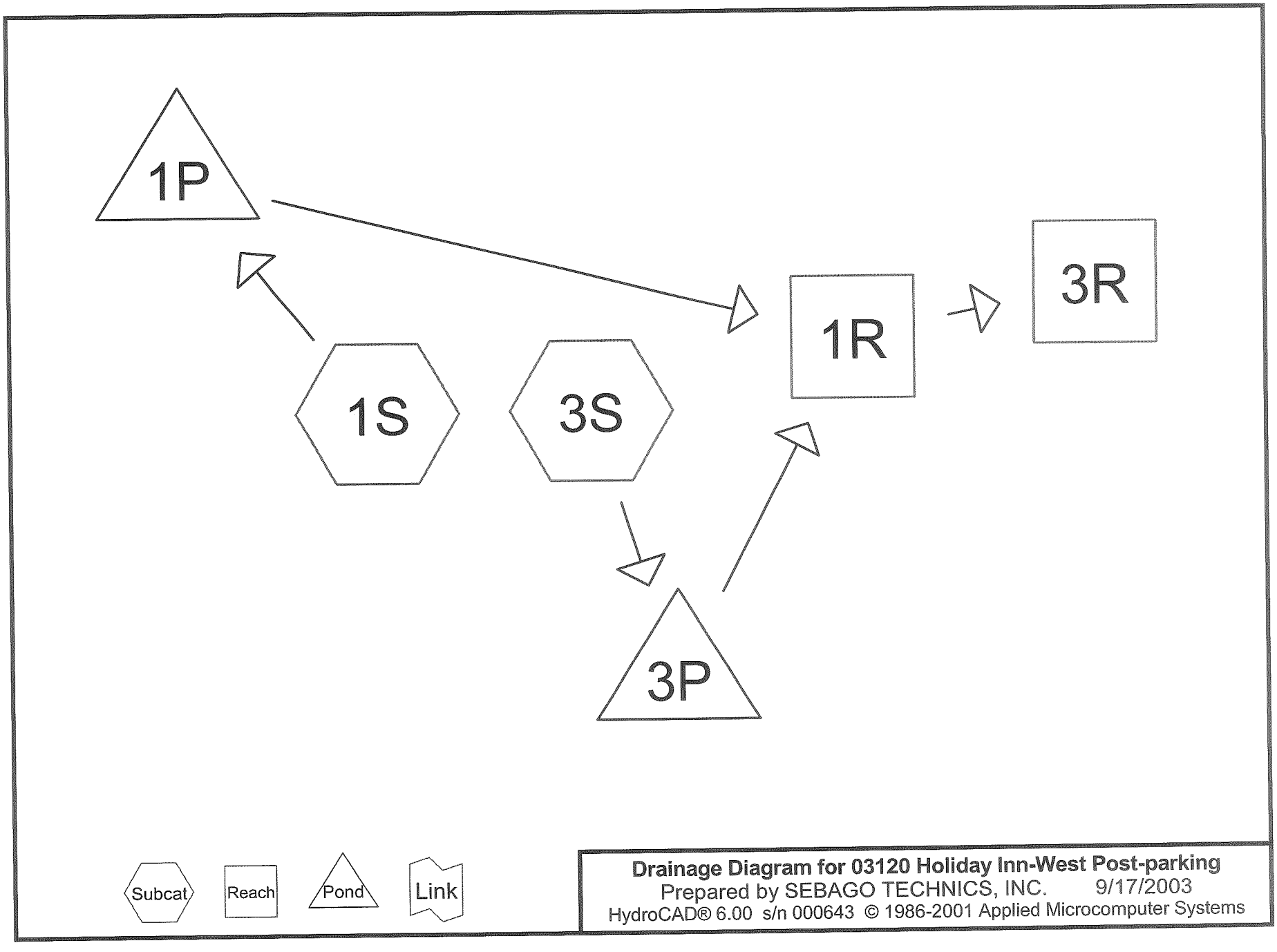
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
93.00	300	0	0
94.00	700	500	500
95.00	1,400	1,050	1,550

Primary OutFlow (Free Discharge)
- 1=Culvert
  - 2=Orifice/Grate
  - 3=Orifice/Grate

#	Routing	Invert	Outlet Devices
1	Primary	93.00'	**6.0" x 45.0' long Culvert** Ke= 0.500 Outlet Invert= 92.72' S= 0.0062 '/' n= 0.010 Cc= 0.900
2	Device 1	93.00'	**3.0" Vert. Orifice/Grate** C= 0.600
3	Device 1	94.10'	**6.0" Horiz. Orifice/Grate** Limited to weir flow C= 0.600

Pond 3P: (new node)





Drainage Diagram for 03120 Holiday Inn-West Post-parking
Prepared by SEBAGO TECHNICS, INC. 9/17/2003
HydroCAD® 6.00 s/n 000643 © 1986-2001 Applied Microcomputer Systems

Subcatchment 1S: (new node)

Runoff = 1.51 cfs @ 12.07 hrs, Volume= 0.102 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.50"

Area (sf)	CN	Description
7,000	98	
7,400	74	>75% Grass cover, Good, HSG C
14,400	86	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment 3S: (new node)

Runoff = 1.19 cfs @ 12.07 hrs, Volume= 0.092 af

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.50"

Area (sf)	CN	Description
9,600	98	new parking

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Reach 1R: (new node)

Inflow = 1.62 cfs @ 12.18 hrs, Volume= 0.192 af
Outflow = 1.61 cfs @ 12.21 hrs, Volume= 0.192 af, Atten= 0%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.2 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.3 fps, Avg. Travel Time= 1.5 min

Peak Depth= 0.62'
Capacity at bank full= 2.30 cfs
Inlet Invert= 92.72', Outlet Invert= 92.24'
12.0" Diameter Pipe n= 0.013 Length= 115.0' Slope= 0.0042 '/'

Reach 3R: (new node)

Inflow = 1.61 cfs @ 12.21 hrs, Volume= 0.192 af
Outflow = 1.61 cfs @ 12.21 hrs, Volume= 0.192 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Pond 1P: (new node)

Inflow = 1.51 cfs @ 12.07 hrs, Volume= 0.102 af
Outflow = 0.91 cfs @ 12.18 hrs, Volume= 0.101 af, Atten= 40%, Lag= 6.5 min
Primary = 0.91 cfs @ 12.18 hrs, Volume= 0.101 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 94.58' Storage= 829 cf
Plug-Flow detention time= 28.7 min calculated for 0.101 af (98% of inflow)
Storage and wetted areas determined by Prismatic sections

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
93.27	300	0	0
94.00	630	339	339
95.00	1,050	840	1,179

Primary OutFlow (Free Discharge)
- 1=Culvert
  - 2=Culvert
- 3=Orifice/Grate

#	Routing	Invert	Outlet Devices
1	Primary	93.27'	**12.0" x 250.0' long Culvert** Ke= 0.500 Outlet Invert= 92.72' S= 0.0022 '/' n= 0.013 Cc= 0.900
2	Device 1	93.27'	**3.0" x 30.0' long Culvert** Ke= 0.500 Outlet Invert= 93.20' S= 0.0023 '/' n= 0.010 Cc= 0.900
3	Primary	94.00'	**6.0" Horiz. Orifice/Grate** Limited to weir flow C= 0.600

Pond 3P: (new node)

Inflow = 1.19 cfs @ 12.07 hrs, Volume= 0.092 af
Outflow = 0.71 cfs @ 12.18 hrs, Volume= 0.091 af, Atten= 41%, Lag= 6.5 min
Primary = 0.71 cfs @ 12.18 hrs, Volume= 0.091 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 94.33' Storage= 842 cf
Plug-Flow detention time= 31.0 min calculated for 0.091 af (99% of inflow)
Storage and wetted areas determined by Prismatic sections

Department of Planning & Development
Lee D. Urban, Director

CITY OF PORTLAND

Division Directors
Mark B. Adelson
Housing & Neighborhood Services

Alexander Q. Jaegerman, AICP
Planning

John N. Lufkin
Economic Development

November 18, 2003

Mr. Jon Whitten
Sebago Technics, Inc.
1 Chabot Street, PO Box 1339
Westbrook, ME 04098-1339

Dear Mr. Whitten:

RE: Application for Minor Site Plan, 81 Riverside Street
(CBL#266A002) (ID#2003-0195)

Thank you for your application for the parking lot expansion at the Holiday Inn. Upon review, the City has the following comments:

1. Planning Comments:

   a. Lighting: Are there any additional lighting proposed? If so, please add pole locations to the plan and submit photometric plans.

   b. Landscaping: If room allows, please provide some landscape buffering along the side property line.

2. Engineering Review:
   a. It is unclear whether there is an existing storm drain system along the existing parking lot edge. If there is the pipe sizes and structure inverts labeled to better identify the collection paths and discharge locations.

   b. The plan should identify what adjustments, if any are required to the existing storm drainage structures.

   c. The applicant has provided water quality treatment using vegetated swales. The swales do not sufficiently meet the BMP guidelines for vegetated swale conditions necessary to provide 25% TSS removal efficiency, therefore I recommend consideration be given for the installation of a water quality treatment unit such as a Vortech or downstream defender. Since there is an existing closed drainage system,

389 Congress Street • Portland, Maine 04101 • (207) 874-8721 • FAX 756-8258 • TTY 874-8936

this seems like an ideal application and will provide better long term treatment and operating conditions than the swales, since the swales are likely to be poorly maintained and subject to failure.

d. The swales are to have a simple pipe riser for an outlet. Additional detail is necessary to show how the outlet pipe will be protect from frost heaving etc.

e. We recommend consideration be given to a more appropriate seed mixture within the swale area since these areas will be subject to periodic inundation of stormwater. the BMPs discuss possible seed mixtures.

3. Public Works Comments:

The plans and design address the City's requirements as they relate to pre and post development flows and runoff quality. This development, however, increases the overall runoff volume that exits the site by almost 50%. The ultimately has a negative downstream impact to the City's current flooding problems within the Capisic Brook Watershed. Other recent development proposals, discharging larger volumes of runoff to the Capisic Brook Watershed have been required to make a financial contribution to the City's efforts at planning, designing and construction detention facilities in the Capisic Brook Watershed headwaters. The City should consider this applicant to be required to do the same. An amount no greater than 2% of the site development costs is the multiplier used in other cases.

PUBLIC WORKS ENGINEERING...11/18//03

The City Engineer has requested the applicant provide the City an easement adjacent to the Texaco Gas/Convenience Store, for the purpose of maintaining the drainage swale along the common property line.

Please feel free to call me at 874-8632 if you have any questions or comments.

Sincerely,

Jay Reynolds
Development Review Coordinator

cc: Sarah Hopkins, Development Review Services Manager

From: "Steve Bushey" <SBushey@DelucaHoffman.com>
To: Portland.CityHall(JAYJR)
Date: Wed, Oct 29, 2003 10:10 AM
Subject: Holiday Inn West Site Plan

Jay,

I hope I'm not too late in providing you comments on the Holiday Inn west Plan. I offer the following comments on the 9/17/03 site plan prepared by Sebago Technics.

1. It is unclear whether there is an existing storm drain system along the existing parking lot edge. If there is the pipe sizes and structure inverts labeled to better identify the collection paths and discharge locations.

2. The plan should identify what adjustments, if any are required to the existing storm drainage structures.

3. The applicant has provided water quality treatment using vegetated swales. The swales do not sufficiently meet the BMP guidelines for vegetated swale conditions necessary to provide 25% TSS removal efficiency, therefore I recommend consideration be given for the installation of a water quality treatment unit such as a Vortech or downstream defender. Since there is an existing closed drainage system, this seems like an ideal application and will provide better long term treatment and operating conditions than the swales, since the swales are likely to be poorly maintained and subject to failure.
4. The swales are to have a simple pipe riser for an outlet. Additional detail is necessary to show how the outlet pipe will be protect from frost heaving etc.
5. We recommend consideration be given to a more appropriate seed mixture within the swale area since these areas will be subject to periodic inundation of stormwater. the BMPs discuss possible seed mixtures.

If you have any questions please call

Stephen Bushey, P.E.
Senior Engineer
DeLuca-Hoffman Associates, Inc.
Tel. 207-775-1121
Fax 207-879-0896
sbushey@delucahoffman.com

Parking Lot — Holiday Inn — El Riverside

(1) Stamped survey/notes

(2) SS → City line?
Size? → label on Plan
6" Pipes OK?
* Eng. Review → Steve Rowley (what's the request about?)
* PWD Review → Request? 50% Increase?

(3) Impervious surface? — Range

(4) Landscaping → Do we need buffer between properties? Yes?
→ Did they install all the landscaping from the previous site Plan.

(5) Any Lighting Proposed?

(6) Circulation → Hm, should they have pointed out one or easterly exit/westerly side?

CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
Engineering Copy

2003-0195
Application I. D. Number

09/18/2003
Application Date

Harper Hotels Inc
Applicant

Po Box 121, Muncie, IN 47308
Applicant's Mailing Address

Holiday Inn-West Parking
Project Name/Description

Consultant/Agent

81 - 81 Riverside Ave, Portland, Maine
Address of Proposed Site

Applicant Ph: (207) 774-5601 Agent Fax:
Applicant or Agent Daytime Telephone, Fax

266 A002001
Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): ☐ New Building ☐ Building Addition ☐ Change Of Use ☐ Residential ☐ Office ☐ Retail ☐ Manufacturing ☐ Warehouse/Distribution ☑ Parking Lot ☐ Other (specify)

Proposed Building square Feet or # of Units | Acreage of Site | B4 Zoning

Check Review Required:

☑ Site Plan (major/minor) ☐ Subdivision # of lots ☐ PAD Review ☐ 14-403 Streets Review

☐ Flood Hazard ☐ Shoreland ☐ HistoricPreservation ☐ DEP Local Certification

☐ Zoning Conditional Use (ZBA/PB) ☐ Zoning Variance ☐ Other

Fees Paid: Site Plan $400.00 Subdivision Engineer Review Date 09/22/2003

Engineering Comments

PUBLIC WORKS ENGINEERING REVIEW...10/02/03

I have reviewed the plans and application dated 9/18/03 and offer the following comments:

1. The plans and design address the City's requirements as they relate to pre and post development flows and runoff quality. This development, however, increases the overall runoff volume that exits the site by almost 50%. The ultimately has a negative downstream impact to the City's current flooding problems within the Capisic Brook Watershed. Other recent development proposals, discharging larger volumes of runoff to the Capisic Brook Watershed have been required to make a financial contributiion to the City's efforts at planning, designing and construction detention facilities in the Capsic Brook Watershed headwaters. The City should consider this applicant to be required to do the same. An amount no greater than 2% of the site development costs is the multiplier used in other cases.

Performance Guarantee ☐ **Required*** ☐ **Not Required**

* No building permit may be issued until a performance guarantee has been submitted as indicated below

☐ Performance Guarantee Accepted	date	amount	expiration date
☐ Inspection Fee Paid	date	amount	
☐ Building Permit Issue	date		
☐ Performance Guarantee Reduced	date	remaining balance	signature
☐ Temporary Certificate of Occupancy	date	☐ Conditions (See Attached)	expiration date
☐ Final Inspection	date	signature	

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
93.00	300	0	0
94.00	700	500	500
95.00	1,400	1,050	1,550

Primary OutFlow (Free Discharge)
- 1=Culvert
  - 2=Orifice/Grate
  - 3=Orifice/Grate

#	Routing	Invert	Outlet Devices
1	Primary	93.00'	**6.0" x 45.0' long Culvert** Ke= 0.500 Outlet Invert= 92.72' S= 0.0062 '/' n= 0.010 Cc= 0.900
2	Device 1	93.00'	**3.0" Vert. Orifice/Grate** C= 0.600
3	Device 1	94.10'	**6.0" Horiz. Orifice/Grate** Limited to weir flow C= 0.600

Sebago Technics
Engineering Expertise You Can Build On

sebagotechnics.com
One Chabot Street
P.O. Box 1339
Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

April 1, 2004
03120

Mr. Jay Reynolds, Development Review Coordinator
City of Portland
389 Congress Street
Portland, ME 04101

Revised Site Plan Submittal, Holiday Inn-West, 81 Riverside Street (CBL#266A002) (ID#2003-0195)

Dear Jay,

On behalf of the applicant, Holiday Inn-West, we are submitting a Revised Site Plan Application package for your review. This revised package includes changes to the plan based on value engineering and on the City's decision to not grant the sidewalk and curb waiver as was requested by the applicant.

The plan set has been revised to show a proposed 5-foot sidewalk along Riverside Street starting from the termination of the existing sidewalk, near the entrance to Texaco, and ending near the existing entrance to the Holiday Inn-West. The proposed sidewalk will be approximately 111 feet long, with a 5-foot wide paved surface and granite curbing. The finished grade of the sidewalk will be pitched such that runoff will be directed toward Riverside Street. The applicant is proposing to remove the existing guardrail in the immediate area as part of this project. The rear of the sidewalk will be backfilled to match in to the existing slopes and loamed and seeded.

Other revisions to the plan include revisions to the layout of the storm drain system. Upon a site visit with the applicant and perspective contractors, it was realized that maintaining the existing 12-inch CMP pipe within the existing lawn area through the construction process would be extremely difficult given the existing conditions of the pipe. Although the pipe will carry water in its existing, undisturbed state, it was the feeling on the contractors that the pipe would be crushed easily during the construction of the parking area. Therefore, we have revised the plans to show a removal of this existing 12-inch pipe within the construction limits and re-direct flows to the storm drain system located within the existing parking area. This system currently, satisfactorily handles flows from Riverside Street and the existing parking area. Approximately 1/3 of the proposed parking area will be directed to this system. The remaining flows will be directed to the existing outlet directly. Calculations of the proposed new configuration are attached for review.

Directly associated with the revisions to the drainage system is the proposed easement to be granted to the City of Portland for maintenance of the system. A 30-foot easement has been proposed along the revised system which encompasses all structures and pipes involved with the safe passage of runoff from Riverside Street to the Maine Turnpike.

These alterations are proposed to best serve this project and the City by sustaining the longevity of the storm drain system to safely and efficiency direct runoff through the property to the existing outfall. With this submittal we respectfully ask your continued review and approval of this Site Plan if appropriate. Please feel free to contact us with any further questions or comments.

Sincerely,

SEBAGO TECHNICS, INC.

Jon H. Whitten, Jr.
Project Engineer

JHW:dlf

cc: Richard Kelly, Jr.

Sebago Technics
Engineering Expertise You Can Build On

sebagotechnics.com
One Chabot Street
P.O. Box 1339
Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

March 19, 2004
03120

Jay Reynolds, Development Review Coordinator
City of Portland
389 Congress Street
Portland, ME 04101

Updated Site Plan Submittal, Holiday Inn-West, 81 Riverside Street (CBL#266A002) (ID#2003-0195)

Dear Jay:

On behalf of the applicant, Holiday Inn-West, we are submitting an updated Site Plan Application package for your review. This updated package includes changes to the plan that were discussed at our January 29, 2004 meeting.

The design of the proposed parking area and associated site upgrades have not been changed significantly from the original proposal. We have added additional existing conditions of the property on the plan as well as a proposed new catch basin and pipe on Riverside Street. The additional existing conditions include the approximate location of the oil pipelines within the property as well as their associated right-of-way and easement. The 24-inch oil pipeline was laid out in the field by the Portland Pipe Line Co. and survey located by our firm. The other pipes are estimated locations from past plans of the property. We have also added a proposed easement along the pipe system running through the property from Riverside Street to the Maine Turnpike property as requested by the Portland Public Works Department.

The updated Site Plan has been prepared with no sidewalk along the road frontage of Riverside Street. As you are aware, we previously requested a waiver of the sidewalk and curb requirement and that is currently under review.

We have included the following in support of the proposed project:

- Updated Site Plan and Details
- Copy of the waiver request for the curb and sidewalk
- Copy of a Response to Comments prepared for our January 29, 2004 meeting
- Lighting details
- Copy of the Vegetated Swale design criteria from the MDEP, BMP manual

With the submittal of this updated package, we respectfully ask that this item continue to be reviewed for Site Plan Approval.

Sincerely,

SEBAGO TECHNICS, INC.

Jon H. Whitten, Jr., P.E.
Sr. Project Engineer

JHW:jhw/jc
Enc.

cc: Richard Kelly, Jr.

Sebago Technics
Engineering Expertise You Can Build On

sebagotechnics.com
One Chabot Street
P.O. Box 1339
Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

February 26, 2004
03120

Jay Reynolds, Development Review Coordinator
City of Portland
389 Congress Street
Portland, ME 04101

Request for Waiver of Sidewalk and Curb, Holiday Inn-West, 81 Riverside Street (CBL#266A002) (ID#2003-0195)

Dear Jay:

On behalf of the applicant, Holiday Inn – West, we are submitting a request for a waiver of the Curb and Sidewalk Requirements within the Portland City Code. It is our understanding that the City requires applicants to construct sidewalks and curbing along existing street frontages when under Site Plan review. This would require the applicant of this project to construct a curbed sidewalk along its Riverside Street frontage due to the proposed new parking area. The applicant's street frontage encompasses the area between the Texaco gas station and Exit 8 on Riverside Street.

The applicant recently went through Site Plan review for an upgrade of his building and the improvement of his grounds, and was not required to construct a sidewalk. He feels that the construction of a sidewalk along Riverside Street should be waived by the City due to the following criteria:

1. There is no reasonable expectation for pedestrian usage coming from, going to, and traversing the site.
2. A safe alternative walking route is reasonably and safely available.
3. The cost of such construction is in excess of 5 percent of the overall project cost.

To comment on these criteria, the applicant feels that the vast majority of pedestrians to use a sidewalk in front of his hotel would be his patrons, and currently his patrons use an alternate route. The applicant has witnessed over the years that the few patrons that walk to neighboring businesses commonly walk along the Holiday Inn parking lot and ascend a grassed slope to reach the Texaco gas station and other destinations in the northerly direction. This route is separated from the Riverside Street traffic by a guard rail, a grassed area, and landscaping features and presumably offers an increased sense of safety to the patrons compared to walking directly adjacent to a four-lane roadway. No pedestrian traffic is expected in a southerly direction due to the lack of pedestrian destinations and the absence of pedestrian avenues near the intersection of Riverside Street and Exit 8.

The total cost of the proposed parking expansion is approximately $87,000.00. If required, the construction of a sidewalk with granite curbing along the frontage of this property would easily reach approximately $7,200.00*, which is in excess of 5 percent of the overall project costs and does not seem feasible.

The construction of additional parking is intended solely to provide better parking conditions for the existing patrons. As a result, an increase in pedestrian traffic from the hotel is not expected. Therefore, it can be reasonably assumed that the number of pedestrians leaving the site would remain constant and there would be no changes in the pedestrian movement patterns. The addition of a sidewalk would have no practical benefit.

With the submittal of this letter, we respectfully request that the required construction of a curbed sidewalk along the property's Riverside Street frontage be waived. Please contact us with any questions or comments.

Sincerely,

SEBAGO TECHNICS, INC.

Jon H. Whitten, Jr., P.E.
Sr. Project Engineer

JHW:jhw/jc

cc: Richard Kelly, Jr., Holiday Inn - West

*Note: $7,200.00 is based on a 120 foot long bituminous sidewalk with vertical granite curb, priced at $60.00 per foot. Traffic control and other real-life factors were not included in this estimate.

Sebago Technics
Engineering Expertise You Can Build On

sebagotechnics.com
One Chabot Street
P.O. Box 1339
Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

January 29, 2004
03120

Jay Reynolds, Development Review Coordinator
City of Portland
389 Congress Street
Portland, ME 04101

Response to Comments, Holiday Inn-West, 81 Riverside Street (CBL#266A002) (ID#2003-0195)

Dear Jay:

This letter has been prepared in order to respond to comments made in your November 18, 2003 letter regarding the proposed Site Plan for additional parking at the Holiday Inn-West Hotel in Portland. We have included you comment in italics followed by our responses.

1. *Planning Comments:*

   a. *Lighting: Are there any additional lighting proposed? If so, please add pole locations to the plan and submit photometric plans.*

   There are four additional light poles that are being proposed for this project. The poles will be installed along the common line of the existing parking area and the proposed parking area. Specific lighting details have been provided by the applicant to show the types of lighting fixtures and the proposed photometrics of the lights in the immediate area.

   b. *Landscaping: If room allows, please provide some landscape buffering along the side property line.*

   The applicant recently upgraded the landscaping along this sideline with evergreen trees that are at least 6 feet in height. These trees are mostly located near Riverside Street, but will provide a good visual buffer for the proposed parking area from Riverside Street as is. There is about a 4 to 6 foot vertical drop from the back areas of the M. W. Sewall filling station and the proposed parking. This vertical drop is currently covered with riprap and provides a visual break between the two properties. With the limited space between the riprap slope and the proposed parking area, and the presence of the vertical difference between the two properties, new additional landscaping is not seen as a necessary action for this project by the applicant.

2. *Engineering Review:*

a. *It is unclear whether there is an existing storm drain system along the existing parking lot edge. If there is the pipe sizes and structure inverts labeled to better identify the collection paths and discharge locations.*

There is an existing storm drain line along the edge of the existing parking area. The pipe sizes and inverts have been added to the plans for more clarity.

b. *The plan should identify what adjustments, if any are required to the existing storm drainage structures.*

No adjustments are proposed to the existing storm drain line at the edge of the existing parking area.

c. *The applicant has provided water quality treatment using vegetated swales. The swales do not sufficiently meet the BMP guidelines for vegetated swale conditions necessary to provide 25% TSS removal efficiency, therefore I recommend consideration be given for the installation of a water quality treatment unit such as a Vortech or downstream defender. Since there is an existing closed drainage system, this seems like an ideal application and will provide better long term treatment and operating conditions than the swales, since the swales are likely to be poorly maintained and subject to failure.*

Given the published design guidelines from the MDEP for vegetated swales, we feel that the designed stormwater facilities will provide 25 percent TSS removal. We have attached the guidelines for your review.

d. *The swales are to have a simple pipe riser for an outlet. Additional detail is necessary to show how the outlet pipe will be protect from frost heaving etc.*

These risers will be installed with very little cover to match the existing piping on the property. The pipes are to be installed similarly to the detail for the typical trench detail. Select backfill will be installed above and below the pipe risers to help prevent local frost action.

e. *We recommend consideration be given to a more appropriate seed mixture within the swale area since these areas will be subject to periodic inundation of stormwater. the BMPs discuss possible seed mixtures.*

The proposed shallow stormwater management BMPs are to be maintained as lawn area by the hotel staff. These areas are designed to only temporarily pond water in large storm events. These areas should not hold water for more than 24 hours after a storm event. Therefore, it is the request of the applicant that the proposed seed mixture remain in the proposed as is.

3. *Public Works Comments:*

The plans and design address the City's requirements as they relate to pre and post development flows and runoff quality. This development, however, increases the overall runoff volume that exits the site by almost 50%. The ultimately has a negative downstream impact to the City's current flooding problems within the Capisic Brook Watershed. Other recent development proposals, discharging larger volumes of runoff to the Capisic Brook Watershed have been required to make a financial contribution to the City's efforts at planning, designing and construction detention facilities in the Capisic Brook Watershed headwaters. The City should consider this applicant to be required to do the same. An amount no greater than 2% of the site development costs is the multiplier used in other cases.

We would like to discuss this comment with you and Public Works directly to negotiate a response on which everyone can agree.

With the submittal of this letter, the lighting details, revised plans and the planned meeting with you and other City staff, we respectfully ask that this item continue to be reviewed for Site Plan Approval.

Sincerely,

SEBAGO TECHNICS, INC.

Jon H. Whitten, Jr., P.E.
Sr. Project Engineer

JHW:jhw/jc
Enc.

cc: Richard Kelly, Jr.

Sebago Technics
Engineering Expertise You Can Build On

sebagotechnics.com
One Chabot Street
P.O. Box 1339
Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

-74

February 5, 2004
03120

Mr. Jay Reynolds, Development Review Coordinator
City of Portland
389 Congress Street
Portland, ME 04101

January 29, 2004 Meeting Summary, Holiday Inn-West, 81 Riverside Street (CBL#266A002) (ID#2003-0195)

Dear Jay,

Thank you for organizing the January 29th meeting between me, Mr. Kelly, Mr. Leisure, Mr. McCullough and Ms. Hopkins, Mr. Labelle and yourself. We feel that this meeting was necessary and worth while due to the progress that was made through our various discussions. We have prepared this letter as a summary of results from the meeting to better clarify how we will be proceeding with this proposal.

At the meeting we handed out a responding to your collected comments on the project from a previous Site Plan Review meeting. Most of the responses presented in that letter are still valid and we will be re-issued in our next submittal. There were two comments that were of particular focus during our January 29th meeting that we feel that Ms. Hopkins, Mr. Labelle and you gave us direction on:

- The first being that the project would be considered as a negative impact on the Capisic Brook Watershed and that the applicant would have to pay "an amount not greater than 2% of the site development costs...".

- The second being that "The City Engineer has requested the applicant provide the City an easement adjacent to the Texaco Gas/Convenience Store, for the purpose of maintaining the drainage swale along the common property line."

As we understand, from our discussions, it was left that the applicant is going to design the installation of a small amount of curbing and an additional catch basin adjacent to the travel way of Riverside Street. This would direct the vast majority of the runoff along the easterly edge of Riverside Street into the existing storm drain system currently traversing the site through the lawn area (the area where the new parking is proposed) thereby relieving the applicant of the problems he has recently had with runoff inadvertently entering his parking lot. The new catch basin will be designed to connect into an existing catch basin on the site.

This will not affect the proposed stormwater design (quantity or quality) for the additional parking area. In addition to putting the runoff back into the existing drainage system, the applicant is willing to work with City Staff to establish an easement over the drainage system as requested.

Due to the applicant's proposed stormwater management plan and the work mentioned above, the applicant will not be required to pay a fee to the City of Portland for general Capisic Brook Watershed improvement projects.

In addition to our discussions about stormwater and easements, a discussion came up about the installation of sidewalk and curbing along the road frontage of the site. We were supplied the criteria for which a waiver could be granted and will be submitting a request for a waiver to you for review.

Again, thank you for meeting with us on January 29th. We feel that the aforementioned procedures will benefit both the applicant and the City. Please feel free to contact us with any discussion of this summary or any questions that you may have regarding the project.

Sincerely,

SEBAGO TECHNICS, INC.

Jon H. Whitten, Jr.
Project Engineer

JHW:dlf

cc: Richard Kelly, Jr.

SiteMaster Roadway Series

Horizontal Lamp Cutoff Luminaire

TYPE A

APPLICATIONS

- Building Perimeters, Parks, Recreation Areas, Parking Areas, Roadways, Outdoor Sales Areas, Sport Courts, Outdoor Areas.

CONSTRUCTION

- Precision die-cast aluminum housing.
- One-piece fully gasketed die-cast aluminum lens frame.
- Construction and gasketing prohibit dust, moisture, and bug entry.
- Toolless entry into housing/lamp chamber via door/lens frame latch.
- Corrosion resistant Duraplex II Bronze polyester powder coated finish.
- Optional designer finishes available. See inside back cover of ExceLine catalog.

ELECTRICAL

- Porcelain spring-loaded 4KV pulse rated socket-mogul base.
- HPF CWA ballast.
- Electrical components mounted to hinged ballast tray.
- Starting temperature: LX(HPS)-40˚ F/-40˚ C, MA(MH)-20˚ F/-30˚ C.
- **Pulse Start compatible.** See chart in the Energy Saving Products section.

OPTICS

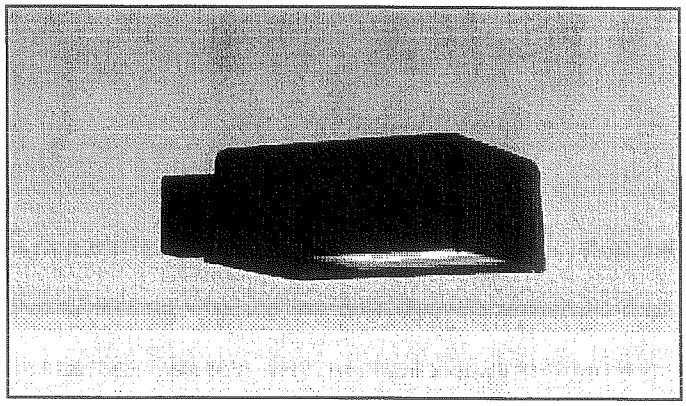
- One-piece hydroformed anodized aluminum reflector.
- Type 4 reflector incorporates segmented inserts.
- 400W MA Types 2 and 4 optics require reduced outer jacketed lamps.

MOUNTING

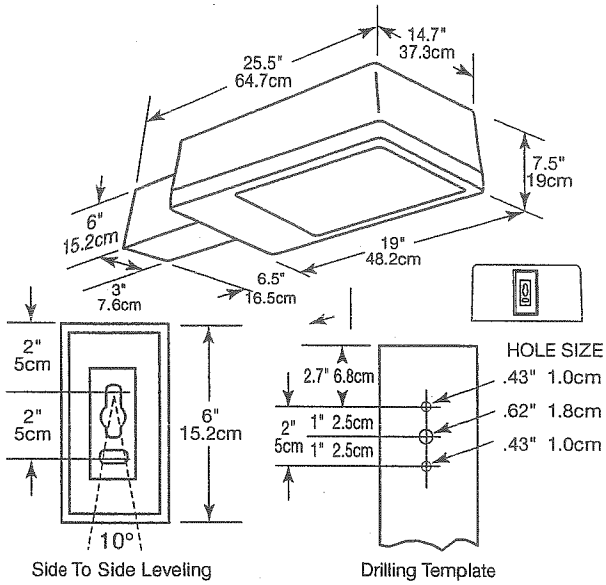
- Factory installed die-cast aluminum arm.
- Arm contains integral wiring/splice chamber via side access.
- Key slot design provides one person installation and leveling.
- Hands-free wiring.

WARRANTY/LISTINGS

- UL 1598 listed for wet locations.
- Published five year limited warranty.



150 to 400 Watt (MA) Metal Halide
100 to 400 Watt (LX) High Pressure Sodium



Side To Side Leveling

Drilling Template

EPA = 1.5 sq.ft.

OPTIONS & ACCESSORIES — SEE END OF THIS SECTION.

PHOTOMETRICS — SEE REVERSE SIDE.

c UL

ORDERING GUIDE EXAMPLE: SMR154MA-1

SMR	15	4	MA		-	1
SMR	40	4	MA	—	-	8
Prefix	Wattage	Distribution	Source	Options		Voltage
SMR	15=150(E/BT/ED28) 17=175(E/BT/ED28) 25=250(E/BT/ED28) 40=400(ED/BT28)[1]	4 3 2	MA	See options/acc's end of this section.		1=120 2=208 3=240 4=277 5=480 8=120-277
	10=100(ED/ET23.5) 15=150(ED/ET23.5) 25=250(ED/ET23.5) 40=400(ED/ET18)[1]	4 3 2	LX			

Product information is subject to change without notice.

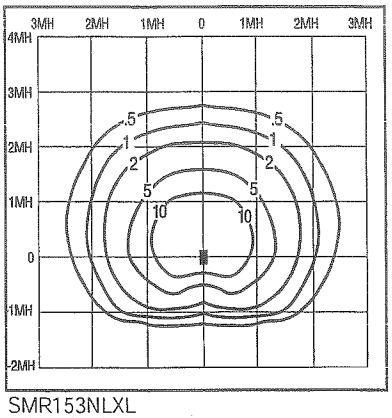
[1]Requires ED37 lamp for Type 3 only.

ExceLine a GENLYTE THOMAS Company

TYPE A

SiteMaster Roadway Series

1 Fixture Per Pole



SMR153NLXL
LU150/55/MED
16,000 Lumens
10' Mount. Hgt.
Type III Distrib.

Footcandle Correction

Different Lamps/Watts

Multiply the following factors times the footcandle values for changes in lamps/watts:

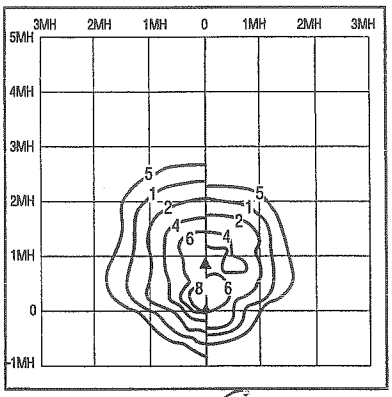
35W	HPS	.14	50W	MA	.21
50W	HPS	.25	70W	MA	.34
70W	HPS	.34	100W	MA	.45
100W	HPS	.60			
150W	HPS	1.00			

Different Mounting Height

Multiply the following factors times the footcandle values for changes in mounting height:

To Change From 10'					
New Height	6'	8'	10'	12'	15'
Factor	2.8	1.6	1.0	.69	.44

1 Fixture Per Pole



SMR404LX
LU400
50,000 Lumens
30' Mount. Hgt.
Forward Throw

SMR404MA
MH400/U
34,000 Lumens
30' Mount. Hgt
Forward Throw

Footcandle Correction

Different Lamps/Watts

Multiply the following factors times the footcandle values for changes in lamps/watts:

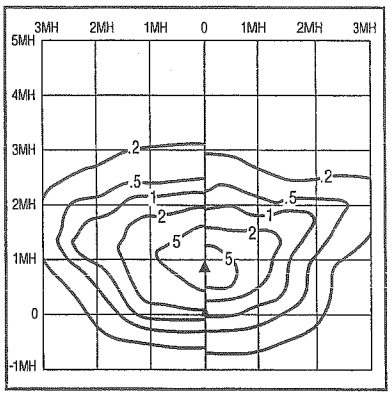
400W	HPS	1.0	400W	MH	1.0
250W	HPS	.55	250W	MH	.60
150W	MA	.32	175W	MH	.41

Different Mounting Height

Multiply the following factors times the footcandle values for changes in mounting height:

To Change From 30'					
New Height	20'	25'	30'	35'	40'
Factor	2.25	1.4	1.0	.73	.56

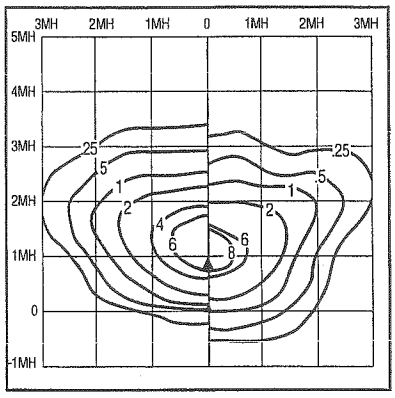
1 Fixture Per Pole



SMR402LX
LU400
50,000 Lumens
30' Mount. Hgt.
Type II Distrib.

SMR402MA
MH400/U
34,000 Lumens
30' Mount. Hgt
Type II Distrib.

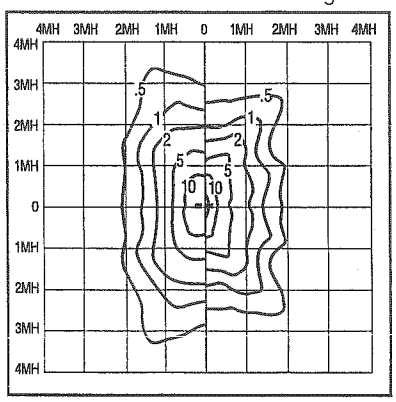
1 Fixture Per Pole



SMR403LX
LU400
50,000 Lumens
30' Mount. Hgt.
Type III Distrib.

SMR403MA
MH400/U
34,000 Lumens
30' Mount. Hgt
Type III Distrib.

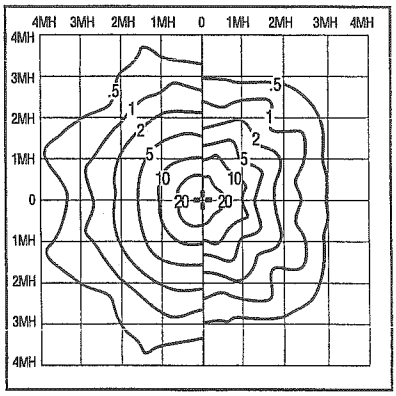
2 Fixtures Per Pole @ 180 Deg.



SMR403LX
LU400
50,000 Lumens
30' Mount. Hgt.
Type III Distrib.

SMR403MA
MH400/U
34,000 Lumens
30' Mount. Hgt
Type III Distrib.

4 Fixtures Per Pole



SMR403LX
LU400
50,000 Lumens
30' Mount. Hgt.
Type III Distrib.

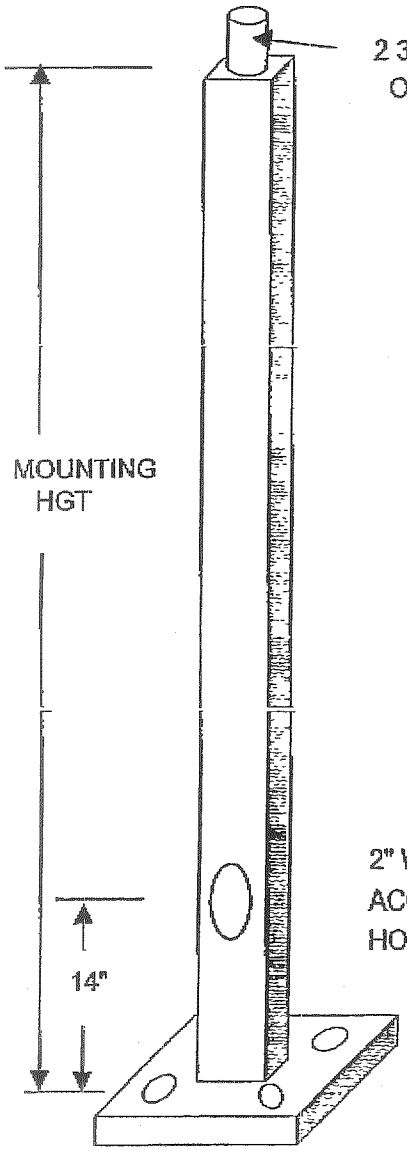
SMR403MA
MH400/U
34,000 Lumens
30' Mount. Hgt
Type III Distrib.

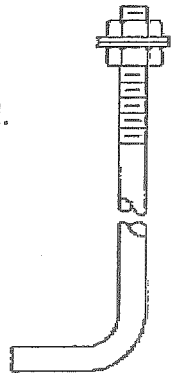
ExceLine
a GENLYTE THOMAS Company

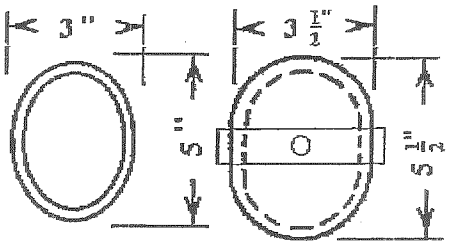
Product information is subject to change without notice.

1. SHAFTS ARE ONE SECTION DESIGN FABRICATED FROM A WELDABLE GRADE CARBON STEEL STRUCTURAL TUBING WITH A UNIFORM WALL THICKNESS. MATERIAL SHALL CONFORM TO ASTM A-500 GRADE B WITH A MINIMUM YIELD STRENGTH OF 46,000 P.S.I.
2. BASE PLATES ARE CONSTRUCTED OF A STRUCTURAL QUALITY HOT ROLLED CARBON STEEL PLATE WITH A GUARANTEED MINIMUM YIELD STRENGTH OF 36,000 P.S.I.
3. ANCHOR BOLTS ARE "L" BENT BARS HAVING A MINIMUM YIELD STRENGTH OF 50,000 P.S.I. FURNISHED COMPLETE WITH NUTS AND WASHERS.
4. POLES ARE FINISHED WITH POLYESTER POWDER COAT PROCESS, BRONZE COLOR.

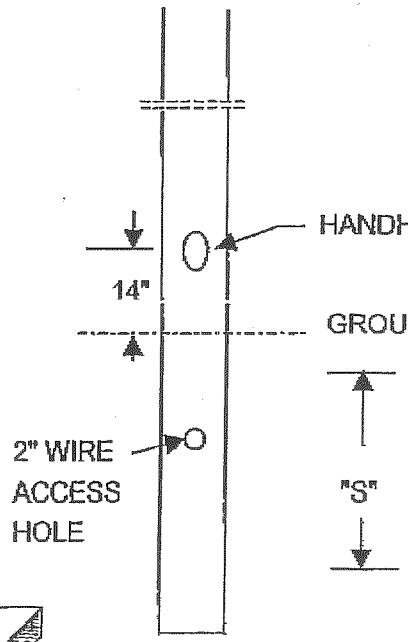
QUANTITY		
CATALOG NO.		
POLE	POLE HEIGHT	20'
	TOP DIA.	4"
	BOTTOM DIA.	4"
	GAGE	11
	MOUNTING HT.	20'
ARM	LENGTH	N/A
EMBEDDED DEPTH		N/A
BASE PLATE	"S"	10"
	BOLT CIRCLE	8"-10"
	BOLE HOLE DIA.	1"
	PLATE THK "T"	.75"
ANCHOR BOLTS	DIA.	.75"
	LENGTH	28"

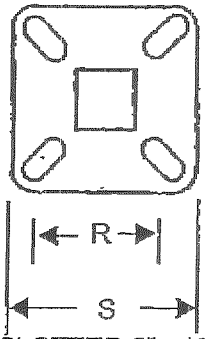



ANCHOR BOLT



EXTRUDED HAND HOLE





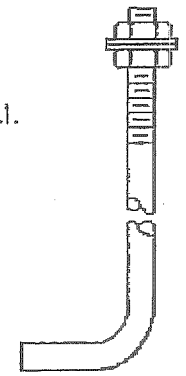
SLOTTED 8" - 10" BASE PLATE

LYTE POLES INCORPORATED
23171 GROESBECK HWY
WARREN, MI 48089

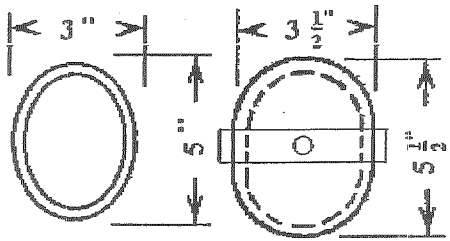
SCALE: NONE	APPROVED BY:	DRAWN BY: RGW
DATE: FEBR. 26, 1999		REVISED:
PROJECT: Holiday Inn - Parking		
JOB NO.	SSS-420-11-DB	DRAWING NUMBER

1. SHAFTS ARE ONE SECTION DESIGN FABRICATED FROM A WELDABLE GRADE CARBON STEEL STRUCTURAL TUBING WITH A UNIFORM WALL THICKNESS. MATERIAL SHALL CONFORM TO ASTM A-500 GRADE B WITH A MINIMUM YIELD STRENGTH OF 46,000 P.S.I.
2. BASE PLATES ARE CONSTRUCTED OF A STRUCTURAL QUALITY HOT ROLLED CARBON STEEL PLATE WITH A GUARANTEED MINIMUM YIELD STRENGTH OF 36,000 P.S.I.
3. ANCHOR BOLTS ARE "L" BENT BARS HAVING A MINIMUM YIELD STRENGTH OF 50,000 P.S.I. FURNISHED COMPLETE WITH NUTS AND WASHERS.
4. POLES ARE FINISHED WITH POLYESTER POWDER COAT PROCESS, BRONZE COLOR.

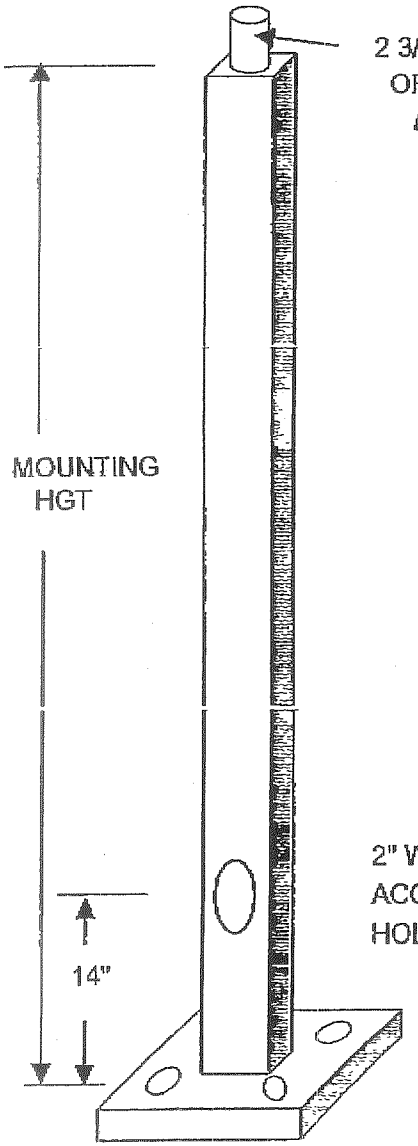
QUANTITY		
CATALOG NO.		
POLE	POLE HEIGHT	25'
	TOP DIA.	4"
	BOTTOM DIA.	4"
	GAGE	11
	MOUNTING HT.	25'
ARM	LENGTH	N/A
EMBEDDED DEPTH		N/A
BASE PLATE	"S"	10"
	BOLT CIRCLE	8"-10"
	BOLE HOLE DIA.	1"
	PLATE THK "T"	.75"
ANCHOR BOLTS	DIA.	.75"
	LENGTH	28"

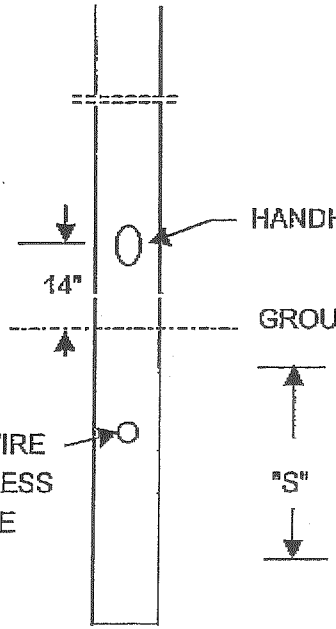


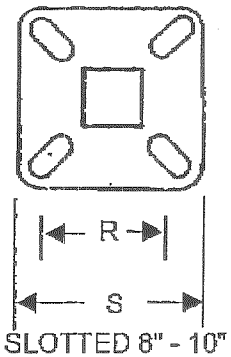
ANCHOR BOLT



EXTRUDED HAND HOLE







SLOTTED 8" - 10"

BASE PLATE

LYTE POLES INC.
P.O. BOX 340
EASTPOINTE, MI 48021

SCALE: NONE	APPROVED BY:	DRAWN BY: RGW
DATE: FEBR. 26, 1999		REVISED:
PROJECT: Holiday Inn - Parking		
JOB NO.	SSS-425-11	DRAWING NUMBER

6.2.2. VEGETATED SWALE

DESCRIPTION AND PURPOSE

Vegetated swales are broad shallow earthen channels with a dense stand of vegetation that are designed to promote infiltration through soil and trap pollutants by filtration through grass. The combination of low velocities and vegetative cover promotes settlement of particulates and some degree of treatment by infiltration. The judicious use of low velocity swales can also help attenuate the volume and peak rate of runoff.

Enhanced vegetated swales with check dams and wide depressions increase runoff storage and promote greater settling of pollutants (refer to the SWALE WITH CHECK DAMS BMP).

TARGET POLLUTANTS

Vegetated swales are most effective for removal of coarse sediment and pollutants associated with it. Fine sediment is not treated unless the runoff water has sufficient detention time, in which case the swale is also acting as a detention or infiltration system. Soluble pollutants are not treated unless there is enough organic matter in the swale bottom to remove the metals and hydrocarbon as part of the portion of runoff that infiltrates via the swale (MPCA, 1989). Highly soluble pollutants such as chloride and zinc may not be removed from the runoff water.

EFFECTIVENESS

MPCA (1989) reports the following regarding effectiveness of vegetated swales:

> "Several studies have been conducted to determine the effectiveness of vegetated swales for improving water quality. One study concluded that they are somewhat effective for removing certain pollutants from storm water runoff (Oakland, 1983). Trace metals were the pollutants with the highest rates of removal by the vegetated swale. The rates ranged from 42 percent removal for dissolved cadmium to 65 percent removal for total lead. Other removal rates were 25 percent for COD, 33 percent for total residue, 51 percent for ammonia, and 32 percent for nitrate-nitrite nitrogen. Decreases in BOD, turbidity, organic nitrogen, and total phosphorus were not significant. Bacteria levels in the swale actually increased, but were attributed to animal activity in the swale.
>
> "The study mentioned above was for one location with a vegetated swale designed specifically for water quality benefits. Another study looked at the effectiveness of three swales that had steeper grades of 2 to 5 percent. That study found that statistically there was no difference in water quality between runoff from the swales and runoff from curb and gutter (NVPDC, 1983). This indicates that low gradient grass swales are best suited to providing water quality benefits. Check dams can be used in higher gradient swales to impound water and slow velocities, but are impractical in steeper swales because of the close spacing required. Biofilters that increase detention, infiltration and wetland uptake within the swale have the potential to substantially improve removal rates" (Schueler, 1992).

For purposes of this manual, vegetated swales have a TSS removal rate of 25%, when designed in accordance with the criteria listed below. If the channel slope is less than 2% and the soils are confirmed to be Hydrologic soil class A or B vegetated swales have a TSS removal rate of 40%. Swales can often complement, but seldom substitute for, other BMPs.

ENVIRONMENTAL CONSIDERATIONS

In residential areas, swales may be essentially an extension of front lawns, with little wildlife value. However, along roadsides and in rear yard areas, swales may be managed as natural areas (Schueler, 1987). Natural colonization by wetland vegetation may occur over time, or wetland plantings may be intentionally introduced as part of site landscaping. As Schueler points out, however, "a natural swale should never be confused with a neglected swale". Swales must be maintained by seasonal mowing and repairs to maintain the flow capacity and ensure the stability of the channel lining, particularly if they are used as part of a nutrient control system.

PLANNING CONSIDERATIONS

1. **Applicability**: Vegetated swales are most applicable in residential or institutional areas where the percentage of impervious cover is relatively small. While swales are generally located along rear or side property lines of residential lots, they can also be used along roadways instead of curbs and gutters. Roadside swales become less feasible as the number of driveways requiring culverts for swale crossings increases.

2. **Flow Volume/Velocity**: Vegetated swales are most effective when the flow depth is shallow and the velocities are low. These characteristics limit the application of grass swales as a BMP to locations where flows are low. Also, the soils should be suitable to establish a vigorous stand of vegetation. If dense vegetation cannot be maintained in the swale, its effectiveness as a BMP will be severely reduced. Sites on A or B hydrologic group soils will be more effective for infiltration, although swales on other soils will still provide some treatment through sedimentation.

3. **Treatment Limitations**: Because of their limited ability to remove dissolved pollutants, vegetated swales should generally be viewed as pre-treatment systems. Grass filter systems are generally most effective when used in combination with other BMPs. Designers should seriously consider integrating redundant pollutant removal enhancement features such as stilling basins, stone infiltration or low-flow trenches, and check dams into swale systems (Galli, 1993) such as at culvert inlets and outlets.

4. **Slopes**: Areas with steep slopes may limit the use of swales. In such areas, swales should parallel the contour, in effect becoming diversions. If the slopes are too steep, the construction of low velocity swale cross sections may involve excessive disturbance of existing grades to provide stable backslopes.

5. **Flow Duration**: To be effective in removing stormwater pollutants, swales must not be subjected to low flows of long duration and not kept wet for long periods. This will saturate the soil, and may kill the vegetation, reducing pollutant removal. The success of a swale system is enhanced by good stormwater treatment throughout its watershed. Good management practices reduce the peak rate of runoff and the volume of water to be carried, infiltrated, or

filtered by the waterway. Effective erosion control practices will limit the pollutant loading to the waterway.

6. **Information Required for Siting**: Sufficient topographic, vegetative cover, and soil survey information is needed to determine drainage area size, runoff magnitude and velocity, significant changes in elevation or direction of flow, the location of natural draws and depressions, and the percolation rate at the site.

7. **Equipment Access and Crossings**: If the swale or waterway must be crossed or maintained with large equipment, consideration should be given to the need for increased width and flat cross section. Large mowing equipment may require a significant increase in width over that needed for hydraulic capacity and freeboard. This problem deserves careful study in each project area so that the proper modifications are made in swale width and side slopes to meet the needs of equipment common to the locality. Easements of sufficient width to allow access by equipment (typically 15 feet minimum) must be provided on either side of the swale.

8. **Using Natural Swales**: The most satisfactory location for a waterway is in a well vegetated natural swale. These locations should be used where possible since they have one or more of the following advantages:

    - Flattest grade in the immediate area.
    - Most stable channel conditions.
    - Soil and moisture conditions most favorable to vegetative growth.
    - Available for immediate use.
    - Lowest elevation in vicinity, allowing sufficient depth for outletting diversions, terraces, or other conveyance facilities.

    The designer should avoid the use of a gullied natural channel that would be impractical to stabilize. Existing ditches proposed for the disposal of runoff should be checked to ensure that they have adequate capacity and that their channels are stable. Generally, existing channels should be used only when they are shown to conform with the same design requirements that apply to new facilities.

9. **Wildlife Habitat**: In order to increase the wildlife habitat potential of these systems, it is recommended that an additional, minimum 10-12 foot wide, no-mow buffer strip be incorporated into their design. This buffer strip should be located between the swale and developed areas, and could be planted with a variety of food-producing grasses/small shrubs and/or native wildflowers. This buffer can also serve as a physical separation from other lawn areas in order to discourage equivalent levels of mowing.

DESIGN CRITERIA

Long-term performance research suggests the following design criteria:

1. **Soils**: Underlying soils should have a high infiltration rate (at least 1.0 inches/hour). The soils should be tilled before the grass cover crop is established to restore infiltration capacity lost during the construction process.

2. **Channel design**: The channel should be designed for low velocity flow. A velocity of 1 fps is the maximum design storm flow velocity recommended when vegetated swales are being designed as a BMP. Higher velocities might be permissible for channel stability, but could result in resuspension of settled particulates. The maximum allowable Q_{10} velocity should be less than 3 fps. Flow depths in the swales should be minimized to increase the amount of vegetative filtering and settling. A maximum design flow depth of 1 foot is suggested. This will generally result in wide, shallow channel designs. The minimum width of the flat bottom of a trapazoidal channel shall be at least 3 times the channel depth. Non trapazoidal channels should have similar depth to width relationsships A minimum width to channel depth ratio of 3:1 is recommended (Galli, 1993).

   The grade of the channel should be as flat as possible, and preferably less than 2 percent (MPCA, 1989). Channels should be designed for capacity and stability in accordance with Erosion and Sediment Control BMP 36.0 of the Maine Erosion and Sediment Control Handbook for Construction (1991).

3. **Infiltration and sedimentation enhancement**: The hydrologic performance of vegetated swales can be improved if check dams are used to temporarily pond runoff (see SWALE WITH CHECK DAMS BMP).

4. **Vegetation**: Vegetation for swale linings should be selected based on soils and hydrologic conditions at the site, in accordance with applicable Erosion and Sediment Control BMPs described in the *Maine Erosion and Sediment Control Handbook for Construction.* Recommended grasses include Ky-31 tall fescue, reed canary grass, redtop, roughstalked blue grass, and mixtures thereof (Galli, 1993).

5. **Construction considerations**: Construct and stabilize the waterway in advance of any other channels or facilities that will discharge into it. Divert all flow from the waterway during the establishment period.

MAINTENANCE

Routine maintenance is important to keep a swale in good working condition. Fertilizing and mowing should be done frequently enough to maintain a growth of vigorous, dense vegetation. Grass should not be trimmed extremely short, as this will reduce the filtering effect of the swale (MPCA, 1989). The cut vegetation should be removed to prevent the decaying organic litter from adding pollutants to the discharge from the swale. Routine maintenance should include: the immediate repair of newly formed channels or gullies, reseeding/sodding of bare spots, removal of trash, leaves and/or accumulated sediments, and the control of woody or other undesirable vegetation. ***Swales must be maintained to remove fine sediment if their infiltrative capacity is to be maintained.*** In addition, the buffer strip may require periodic mechanical aeration to restore infiltration capacity. This aeration must be done during a time when the area can be reseeded and mulched prior to any significant rainfall. It is important to install erosion and sediment control measures to stabilize this area as soon as possible and to retain any organic matter in the bottom of the trench. Routine fertilization and/or use of pesticides is strongly discouraged. Special attention needs to be given to eliminate the gradual buildup of soil and grass adjacent to pavement which prevents the entry of runoff into the swale. The mowed height of the grass should be 2-4 inches taller than the maximum flow depth of the design water quality storm. A minimum mow height of 6 inches is generally recommended (Galli, 1993).

Vehicular traffic should be excluded from the waterway. The area should be inspected for failures following heavy rainfall and repaired as necessary. If complete re-seeding is necessary, half the original recommended rate of fertilizer should be applied with a full rate of seed.

SELECTED REFERENCES

Maine DEP. 1991. *Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices.* Cumberland County Soil and Water Conservation District and Maine Department of Environmental Protection. Augusta, Maine

Maine DEP. 1992. *Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development.* Maine Department of Environmental Protection. Augusta, Maine.

Maryland Department of the Environment. 1984. *Maryland Standards and Specifications for Stormwater Management Infiltration Practices.* State of Maryland Department of the Environment, Sediment and Stormwater Administration. Annapolis, Maryland.

END OF SECTION 6.2.2.

SEBAGO TECHNICS, INC.
One Chabot Street
P.O. Box 1339
WESTBROOK, ME 04098-1339

Phone (207) 856-0277 FAX (207) 856-2206

LETTER OF TRANSMITTAL

5712

TO City of Portland

DATE	JOB NO.
3-19-04	03120

ATTENTION Jay Reynolds

RE: Holiday Inn - West

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications

☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
8			Updated Site Plan packages

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval

☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution

☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints

☒ For review and comment ☐ _____

☐ FOR BIDS DUE _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO Rich Kelly

SIGNED: _____

If enclosures are not as noted, kindly notify us at once.

DEFECT GUARANTEE
with the City of Portland

Developer's Tax Identification Number: 35 103 6445

Developer's Name and Mailing Address: HARPER HOTELS, INC.
dba HOLIDAY INN-WEST.
81 RIVERSIDE

City Account Number: [1]

Treasurer's Report of Receipts Number: [1]

Project Job Number: [1]
(from Site Plan Application form)

Application of HARPER HOTELS, INC. [**applicant**] for HOLIDAY INN-WEST @ 81 RIVERSIDE DRIVE, PORTLAND, ME. 04103 [**insert street/project name**] at [**address**], Portland, Maine.

The City of Portland (hereinafter the "City") will hold the sum of $_____ [**amount of performance guarantee**] on behalf of HARPER HOTELS, INC. [**applicant**] in a non-interest bearing account established with the City. This account shall represent the estimated cost to correct defects in the workmanship and the durability of all materials used in the construction of improvements and to complete any unfinished improvements as required under Portland Code of Ordinances Chapter 14 §§499, 499.5, 525 and Chapter 25 §§46 through 65. It is intended to satisfy the Applicant's obligation, under Portland Code of Ordinances Chapter 14 §§501, 502 and 525, to post a defect guarantee for the above referenced development.

The City, through its Director of Planning and Urban Development and in his sole discretion, may draw against this Escrow Account in the event that:

> the Developer has not corrected, satisfactorily, any defects in work or unfinished improvements as noted above by JUNE 1, 2003 [**date: 1 year from the date of issuance, but in no event between October 30 and April 15**]; or

The City of Portland may draw on this guarantee, at its option, either thirty days prior to the expiration date contained herein, or s/he may draw against this escrow for a period not to exceed ninety (90) days after the expiration of this commitment; provided that the Applicant will give

the City written notice, by certified mail (restricted delivery to Duane Kline, Director of Finance, City of Portland, 389 Congress Street, Room 110, Portland, Maine) of the expiration of this escrow within sixty (60) days prior thereto. Otherwise, drafts may be submitted by the City of Portland no later than ninety (90) days following such notice, whenever given. Provided, however, that the City shall notify the Applicant of its intention to call on the guarantee and to retain the monies posted as guarantee. The City shall provide the Applicant thirty (30) days from the date of such notice in which to complete the noted improvements.

Seen and Agreed to: [**Applicant**]

By: _____

Pursuant to Portland Code of Ordinances, Chapter 14 §§501, 525:

By: _____ Date: _____
Director of Planning and Urban Development

By: _____ Date: _____
Director of Finance

By: _____ Date: _____
Corporation Counsel

Attach **Letter of Approval and Estimated Cost of Improvements** to this form.

Distribution

1. This information will be completed by Planning Staff.
2. The account number can be obtained by calling Paul Colpitts, ext. 8665.
3. The Agreement will be executed with one original and one copy.
4. The original and copy, each signed by the Developer, will be delivered to the Finance Office, together with a copy of the Report of Receipts form.
5. The Director of Finance will sign the copies, retain the original for their files and deliver the other signed copy to the Planning Office.
6. The Planning Office will keep one copy for their files and the original signed copy will be mailed to the Developer.

City of Portland Site Plan Application

If you or the property owner owes real estate, personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Address of Construction: 81 RIVERSIDE ST, PORTLAND, ME. Zone: B-4

Total Square Footage of Proposed Structure: 5,901± SF

Square Footage of Lot: 242,050± SF (5.55 ACRES)

Tax Assessor's Chart, Block & Lot
Chart# 266 Block# A Lot# 2

Property owner, mailing address:
HARPER HOTELS, INC.
c/o MR. JAMES A. MORRIS
ROSE COURT, SUITE 200
PO BOX 121 - MUNCIE, IND. 47308

Telephone: (765) 288-8422

Consultant/Agent, mailing address, phone & contact person
JOHN H. LEASURE ARCHITECT
SIX R ST - SO. PORT, ME.
(207) 767-4600

Applicant name, mailing address & telephone:
HOLIDAY INN - PORT., WEST
c/o MR. RICH KELLY
81 RIVERSIDE DRIVE
PORT, ME. 04103 774-5601

Project name:
INDOOR POOL & LOBBY ADDITION.

Proposed Development (check all that apply) ___New Building ✓Building Addition ___Change of Use
___Residential ___Office ✓Retail ___Manufacturing ___Warehouse/Distribution ___Parking lot
___Subdivision, amount of lots_____
___Site Location of Development $3,000, except for residential lots which are then $200 per lot_____
___Traffic Movement $1,000 ___Stormwater Quality $250.00 ___Other_____
___After the fact review - Major project $1,500.00 ____After the fact review - Minor project $1,200.00

Major Development _____ $500.00 Minor Development ✓ $400.00
Plan Amendments: ____Board review $200.00 ____Staff review $100.00

Who billing will be sent to: MR. RICH KELLY (MGR.)
Mailing address: 81 RIVERSIDE DRIVE
State and Zip: PORT., ME. 04103 Contact person: RICH KELLY Phone: 774-5601
OR JOHN H. LEASURE ARCHITECT 767-4600

Submittals shall include (9)✓ separate folded packets of the following excluding Plan Amendments which shall include (6) separate packets of the following:

a. copy of application
b. cover letter stating the nature of the project
c. site plan containing the information found in the attached sample plans check list

ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

Section 14-522 of the Zoning Ordinance outlines the process, copies are available at the counter at .50 per page (8.5 x11) you may also visit the web site: ci.portland.me.us chapter 14

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: John H. Leasure Date: 3/25/02

This application is for site review ONLY, a building Permit application and associated fees will be required prior to construction

CITY OF PORTLAND, MAINE
SITE PLAN CHECKLIST

HOLIDAY INN-WEST/POOL-LOBBY ADDN
81 RIVERSIDE DRIVE
PORT., ME. 04103

Project Name, Address of Project

35 103 6445
I.d. Number

Submitted () & Date	Item	Required Information	Section 14-525 (b,c)
✓	(1)	Standard boundary survey (stamped by a registered surveyor, at a scale of not less than 1 inch to 100 feet and including:	1
✓	(2)	Name and address of applicant and name of proposed development	a
✓	(3)	Scale and north points	b
✓	(4)	Boundaries of the site	c
✓	(5)	Total land area of site	d
N.A.	(6)	Topography - existing and proposed (2 feet intervals or less)	e
✓	(7)	Plans based on the boundary survey including:	2
N.A.	(8)	Existing soil conditions	a
✓	(9)	Location of water courses, marshes, rock outcroppings and wooded areas	b
✓	(10)	Location, ground floor area and grade elevations of building and other structures existing and proposed, elevation drawings of exterior facades, and materials to be used	c
N.A.	(11)	Approximate location of buildings or other structures on parcels abutting the site	d
✓	(12)	Location of on-site waste receptacles	e
✓	(13)	Public utilities	e
✓	(14)	Water and sewer mains	e
N.A.	(15)	Culverts, drains, existing and proposed, showing size and directions of flows	e
✓	(16)	Location and dimensions, and ownership of easements, public or private rights-of-way, both existing and proposed	f
✓	(17)	Location and dimensions of on-site pedestrian and vehicular accessways	g
✓	(18)	Parking areas	g
✓	(19)	Loading facilities	g
✓	(20)	Design of ingress and egress of vehicles to and from the site onto public streets	g
✓	(21)	Curb and sidewalks	g
✓	(22)	Landscape plan showing:	h
✓	(23)	• Location of existing proposed vegetation	h
✓	(24)	• Type of vegetation	h
✓	(25)	• Quantity of plantings	h
✓	(26)	• Size of proposed landscaping	h
✓	(27)	• Existing areas to be preserved	h
✓	(28)	• Preservation measures to be employed	h
✓	(29)	• Details of planting and preservation specifications	i
✓	(30)	Location and dimensions of all fencing and screening	j
✓	(31)	Location and intensity of outdoor lighting system	k
✓	(32)	Location of fire hydrants, existing and proposed	c
✓	(33)	Written statement	l
✓	(34)	Description of proposed uses to be located on site	l
N.A.	(35)	Quantity and type of residential, if any	b2
✓	(36)	Total land area of the site	b2
✓	(37)	Total floor area and ground coverage of each proposed building and structure	c3
✓	(38)	General summary of existing and proposed easements or other burdens	4
✓	(39)	Method of handling solid waste disposal	

✓	(40)	Applicant's evaluation of availability of off-site public facilities, including sewer, water and streets	5
NONE	(41)	Description of any problems of drainage or topography, or a representation that there are none	6
✓	(42)	An estimate of the time period required for completion of the development	7
✓	(43)	A list of all state and federal regulatory approvals to which the development may be subject	8
✓	(44)	The status of any pending applications	8
✓	(45)	Anticipated timeframe for obtaining such permits	h8
—	(46)	A letter of non jurisdiction	h8
✓	(47)	Evidence of financial and technical capability to undertake and complete the development including a letter from a responsible financial institution stating that is has reviewed the planned development and would seriously consider financing it when approved.	

Note: Depending on the size and scope of the proposed development, the Planning Board or Planning Authority may request additional information, including (but not limited to):

- drainage patterns and facilities;
- erosion and sedimentation controls to be used during construction;
- a parking and/or traffic study;
- a noise study;
- an environmental impact study;
- a sun shadow study;
- a study of particulates and any other noxious emissions; and
- a wind impact analysis.

Other comments:

(33) WRITTEN STATEMENT!

AN INDOOR POOL, NEW LOBBY & NEW STORAGE AND FUNCTION ROOMS WILL BE ADDED TO FRONT ENTRY TOGETHER W/ 14' HI PORTE-COCHERE & WAITING AREA. NEW ENTRY DETAILS WILL BE ADDED AT 8 ENTRIES. GABLE-END DETAIL WILL BE ADDED @ 14 LOCATIONS ON ROOF AREA. (ALL ENTRIES & NEW GABLES WILL BE NEWLY LIGHTED.)

THERE WILL BE 2400 SF OF NEW ENTRY PLANTING WHICH WILL BE LIGHTED @ NIGHT.

ENTRY PAIRS OF DOORS WILL BE AUTOMATIC.

THERE WILL BE A NEW UNDERGROUND ELEC. SERVICE W/ 800 AMP CAPACITY. WATER SUPPLY WILL BE TIED TO EXIST. WATER SYSTEM. DRAINAGE SYSTEM WILL BE TIED INTO EXIST. SEWER SYSTEM AFTER PROPER TREATMENT.

(FIRE MARSHAL & ADA APPROVALS ENCLOSED)

State of Maine
Department of Public Safety
Construction Permit

Not Sprinkled

Reviewed for Barrier Free

12196

HOLIDAY INN-WEST (POOL & LOBBY ADDITION)

Located at: 81 RIVERSIDE STREET

PORTLAND

Occupancy/Use: HOTEL/MOTEL

Permission is hereby given to:

HARPER HOTELS

81 RIVERSIDE STREET
PORTLAND, ME 04103

to construct or alter the afore referenced building according to the plans hitherto filed with the Commisioner and now approved. no departure from application form/plans shall be madewithout prior approval in writing. This permit is issued under the provision of Title 25, Chapter 317, Section 2448 and the provisions of Title 5, Section 4594 - F. Nothing herein shall excuse the holder of this permit for failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions. Each permit issued shall be displayed/available at the site of construction.

This permit will expire at midnight on the 30th of July 2002

Dated the 31st day of January A.D. 2002

Commissioner

Fee: $200.00
$200.00

Copy-1 Owner

Comments:

HARPER HOTELS

81 RIVERSIDE STREET
PORTLAND, ME 04103

Department of Planning and Urban Development
SUBDIVISION/SITE DEVELOPMENT

COST ESTIMATE OF IMPROVEMENTS TO BE COVERED BY PERFORMANCE GUARANTEE

Date: MAR. 25, 2002

Name of Project: HOLIDAY INN PORTLAND WEST

Address/Location: 81 RIVERSIDE ST., PORTLAND, ME.

Developer: HARPER HOTELS, INC.

Form of Performance Guarantee: _____

Type of Development: Subdivision _____ Site Plan (Major/Minor) MINOR!

TO BE FILLED OUT BY THE APPLICANT:

Item	PUBLIC Quantity	PUBLIC Unit Cost	PUBLIC Subtotal	PRIVATE Quantity	PRIVATE Unit Cost	PRIVATE Subtotal
1. STREET/SIDEWALK						
Road PAVING NEW				26 TONS	$85	2210
Granite Curbing EXIST TO BE USED	304'	NEW 140		394 LF	15	4560
				140 LF	27	3780
Sidewalks				928 SF	5.50	5104
Esplanades				—		
Monuments				—		
Street Lighting				—		
Street Opening Repairs				—		
Other PAINT				748 SF	$2.50	4992
2. EARTH WORK						
Cut				587 CY	7	3832 S.I.
Fill				1295 CY	17	22,015 S.I.
3. SANITARY SEWER				EXISTING		
Manholes						
Piping						
Connections						
Main Line Piping						
House Sewer Service Piping						
Pump Stations						
Other						
4. WATER MAINS				EXISTING		
5. STORM DRAINAGE				EXISTING		
Manholes						
Catchbasins						
Piping						
Detention Basin						
Stormwater Quality Units						
Other						

6. SITE LIGHTING			6	175	1050
			9	95	855
7. EROSION CONTROL			9	115	1035
			4	400	1600
Silt Fence					
Check Dams					
Pipe Inlet/Outlet Protection					
Level Lip Spreader					
Slope Stabilization					
Geotextile					
Hay Bale Barriers					
Catch Basin Inlet Protection			2	100	200
8. RECREATION AND OPEN SPACE AMENITIES					
9. LANDSCAPING (Attach breakdown of plant materials, quantities, and unit costs)			SEE ATTACHED		9,880.
10. MISCELLANEOUS	Fugitive Reduction		1 LS	1000	1000
TOTAL:					
GRAND TOTAL:					$62,113.00

INSPECTION FEE (to be filled out by the City)

		PUBLIC	PRIVATE	TOTAL
A:	2.0% of totals:			
	or			
B:	Alternative Assessment:			
	Assessed by:	(name)	(name)	

LANDSCAPING LEGEND

4	A	ANNUALS (TULIPS, GERANIUMS) 500 x $2.50 = $1250	N	JUNIPER 18"-24" x $	2.
5	B	PACHYSANDRA 500 x $1.50 $750	O	POPLAR 1¾" x $	
				EXIST.	
2	C	1½" DWARF FLOWERING CRAB $266 $532	P	LARGE ROCK $80 $200	
6	D	RHODADENDRON 18"-24" @ $124 = $744		STONE WALKWAY $450	
4	E	LILAC BUSH (MISS KIM) 18"-24" @ $120 = $480			
4	F	ARBORVITAE 3'-4' @ $110 = $440			
3	G	YEWS 18"-24" x $88.00 DA = $264			
300	H	SPRUCE & PINE CHIPS $750			
14	I	PGM (MINI-RHODY...) 2½ @ $138.5 = $1972			
5	J	DOUGLAS FIR 4'-5' x $170 DA = $850			
1		EXIST.			
2	K	1¾" C - HAWTHORNE @ $251 DA = $502			
3	L	1¾" C - CRABAPPLE @ $286 DA = $858			
1	M	2½" C - ACER SUGAR MAPLE $450			
		EXIST.			

$ 16,802.
$ 880.

[redacted]
81 Riverside Drive
Portland, Maine 04103
Tel: 207 774 5601
john h. leasure, Architect Inc.

PERFORMANCE GUARANTEE
with the City of Portland

Developer's Tax Identification Number: _____

Developer's Name and Mailing Address: HARPER HOTELS, INC.
dba Holiday INN ~ WEST
81 RIVERSIDE DRIVE
PORTLAND, MAINE 04103

City Account Number: [1] N.A.

Treasurer's Report of Receipts Number: [1] N.A.

Project Job Number: [1] _____
(from Site Plan Application form)

Application of HARPER HOTELS, INC. [**applicant**] for 81 RIVERSIDE DRIVE [**insert street/project name**] at PORTLAND, MAINE 0403 [**address**], Portland, Maine.

The City of Portland (hereinafter the "City") will hold the sum of $_____ [**amount of performance guarantee**] on behalf of HARPER HOTELS [**applicant**] in a non-interest bearing account established with the City. This account shall represent the estimated cost of installing TREES/PLANTS/SHRUBS SHOWN ON DWGS [**insert: subdivision and/ or site improvements (as applicable)**] as depicted on the subdivision/site plan, approved on _____ [**date**] as required under Portland Code of Ordinances Chapter 14 §§499, 499.5, 525 and Chapter 25 §§46 through 65. It is intended to satisfy the Applicant's obligation, under Portland Code of Ordinances Chapter 14 §§501, 502 and 525, to post a performance guarantee for the above referenced development.

The City, through its Director of Planning and Urban Development and in his sole discretion, may draw against this Escrow Account in the event that:

1. the Developer has failed to satisfactorily complete by JUNE 1, 2003 [**date: within two years**] the work on the improvements contained within the INDOOR POOL/LOBBY ADD'N. [**insert: subdivision and/ or site improvements (as applicable)**] approval, dated MARCH , 2002 [**insert date**]; or

2. the Developer has failed to deliver to the City a deed containing the metes and bounds description of any streets, easements or other improvements required to be deeded to the City; or

3. the Developer has failed to post the ten percent (10%) Defect Guarantee required by Portland Code of Ordinances Chapter 14 §§501 and 525; or

4. the Developer has failed to notify the City for inspections in conjunction with the installation of improvements noted in paragraph one.

The Director of Planning and Urban Development may draw on this guarantee, at his option, either thirty days prior to the expiration date contained herein, or s/he may draw against this escrow for a period not to exceed ninety (90) days after the expiration of this commitment; provided that the Applicant will give the City written notice, by certified mail (restricted delivery to Duane Kline, Director of Finance, City of Portland, 389 Congress Street, Room 110, Portland, Maine) of the expiration of this escrow within sixty (60) days prior thereto. Otherwise, drafts may be submitted by the City of Portland no later than ninety (90) days following such notice, whenever given. Provided, however, that the City shall notify the Applicant of its intention to call on the guarantee and to retain the monies posted as guarantee. The City shall provide the Applicant thirty (30) days from the date of such notice in which to complete the noted improvements.

After all underground work has been completed and inspected to the satisfaction of the Department of Public Works and Planning, including but not limited to sanitary sewers, storm drains, catch basins, manholes, electrical conduits, and other required improvements constructed chiefly below grade, the City of Portland Director of Planning and Urban Development or its Director of Finance as provided in Chapter 14 §501 of the Portland Code of Ordinances, may authorize the City to reduce the available amount of the escrowed money by a specified amount.

This Esrow will automatically expire upon the earlier of:

1. the written notification from Portland's Director of Planning and Urban Development that said work contained within the MINOR SITE PLAN REVIEW **[insert: subdivision and/ or site improvements as applicable]** approval and as required by Portland Code of Ordinances Chapter 14 §§499, 499.5, 525 and Chapter 25 §46 through 65 has been completed in accordance with the City of Portland's specifications; or

2. the expiration date of MAR. 2002. **[date may not fall between October 30 and April 15]** or any automatically extended date as specified herein..

Seen and Agreed to: **[Applicant]**

By: John H. Lamey
APPLICANT.

Reviewed pursuant to Portland Code of Ordinances, Chapter 14 §§501, 525:

By: _____ Date: _____
Director of Planning and Urban Development

By: _____ Date: _____
Director of Finance

By: _____ Date: _____
Corporation Counsel

Attach **Letter of Approval and Estimated Cost of Improvements** to this form.

Distribution

1. This information will be completed by Planning Staff.
2. The account number can be obtained by calling Paul Colpitts, ext. 8665.
3. The Agreement will be executed with one original and one copy.
4. The original and copy, each signed by the Developer, will be delivered to the Finance Office, together with a copy of the Report of Receipts form.
5. The Director of Finance will sign the copies, retain the original for their files and deliver the other signed copy to the Planning Office.
6. The Planning Office will keep one copy for their files and the original signed copy will be mailed to the Developer.

25 March, 2002

To: Planning Board, City of Portland, Maine

Re: Additions and alterations to:
Holiday Inn – West
81 Riverside Drive
Portland, Maine.

To All Members of the Board :

Harper Hotels (dba Holiday Inn – West) is planning on an addition to the existing Hotel which will include a new indoor Swimming Pool, an expanded Lobby and Function Rooms as well as much needed space for Kitchen storage facilities.

Much attention has been paid to the exterior to insure that Rooftop A/C units, fans and stacks will be visually protected from view from Riverside Drive.

New gable units will be added around periphery of building which will be lighted and all entryways will have lighted, numbered signs within each structure.

A new electrical service entrance will be provided and new " Holiday Inn " signs will be mounted on two faces of the new Porte-cochere entrance canopy.

There will be extensive Planting of new trees and shrubs as indicated on the plans.

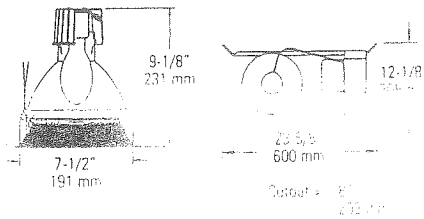
If there are any further questions, please contact us and we will be happy to respond.

Very truly yours,

JOHN H. LEASURE ARCHITECT, INC.
SIX Q STREET
SOUTH PORTLAND, MAINE 04106
207-767-4600 FAX 207-799-5432

Type A

LD7V 7 1/2" Aperture



Reference Data		Coefficients of Utilization			
Reflector	LD7VWHW	%Ceiling	80	(20% Floor)	
Frame	LD7V10HA	%Wall	50	30	10
Lamp	100W ED-17 MH	1	46	45	44
Lamp Lumens	8000	3	40	37	36
Input Watts	126	5	34	32	30
Luminaire Lumens	7246	7	30	27	25
Efficiency	[illegible]	8	[illegible]	[illegible]	[illegible]
Efficacy at 120V	[illegible]	9	[illegible]	[illegible]	[illegible]
Spacing Ratio	[illegible]	10	[illegible]	[illegible]	[illegible]

Room Cavity Ratio

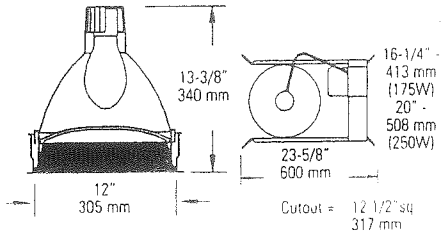
Application Data — Candlepower Curve

[illegible]

How to Specify:

Reflector	+ Frame	Lamp (coated)
[illegible]	[illegible]	[illegible]

LD12D 12" Aperture



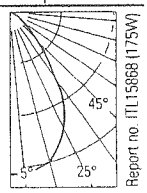
Reference Data		Coefficients of Utilization			
Reflector	LD12DWH	%Ceiling	80	(20% Floor)	
Frame	LD12D17HB	%Wall	50	30	10
Lamp	175W ED-28 MH	1	.72	.70	.68
Lamp Lumens	12000	3	.60	.57	.54
Input Watts	205	5	.51	.47	.43
Luminaire Lumens	7850	7	.44	.39	.36
Efficiency	65.4%	8	.40	.36	.32
Efficacy at 120V	38 LPW	9	.37	.32	.29
Spacing Ratio	1.0	10	.34	.29	.26

Room Cavity Ratio

Application Data — Candlepower Curve

Multiple Units 1 (RCR=2)

Spacing on Center	Initial Foot-candles	Watts per Sq. Ft
7'	162	4.18
10'	79	2.05
12'	55	1.42
14'	40	1.05
16'	31	0.80



Report no. ITL15868 (175W)

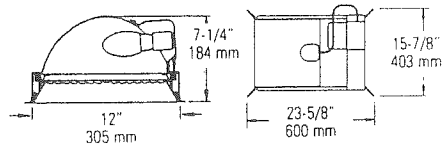
How to Specify:

Reflector	+ Frame	Lamp (coated)
LD12D WH / BK	+ LD12D 17HB	175W ED28 / BT28 MH••
	LD12D 25HB	250W ED28 / BT28 MH••11

* LC, A, E, F1, F2

A = LD12DWH/LD12D17HB

SD12D 12" Sq. Aperture



Cutout = 12 1/8"sq
308 mm

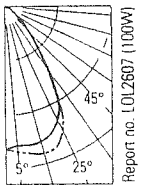
Reference Data		Coefficients of Utilization			
Luminaire	SD12D10HVWH	%Ceiling	80	(20% Floor)	
Lamp	100W ED-17 MH	%Wall	50	30	10
Lamp Lumens	8000	1	.53	.52	.51
Input Watts	126	3	.46	.43	.41
Luminaire Lumens	3855	5	.40	.37	.34
Efficiency	48.2%	7	.34	.31	.29
Efficacy at 120V	31 LPW	8	.32	.29	.27
Spacing Ratio	1.1	9	.30	.27	.24
		10	.28	.25	.23

Room Cavity Ratio

Application Data — Candlepower Curve

Multiple Units 1 (RCR=2)

Spacing on Center	Initial Foot-candles	Watts per Sq. Ft
6'	109	3.50
8'	61	1.97
9'	48	1.55
10'	39	1.26
12'	27	0.88



Report no. LDL2607 (100W)

How to Specify:

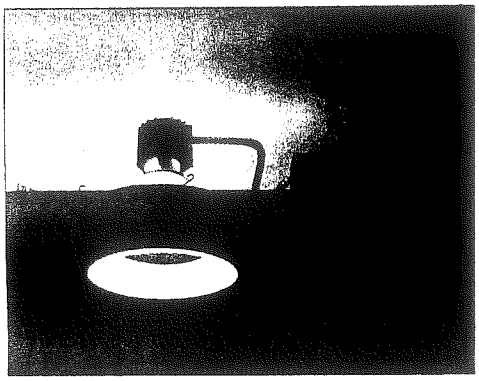
Complete Luminaire	Lamp (coated)
SD12D 70HVWH	70W ED-17 / BD-17 MH or Ceramic MH•
SD12D 10HVWH	100W ED-17 / BD-17 MH or Ceramic MH•

* A, E, F1, F2, EB1, EB2

Calculite®

HID Luminaires

Lensed Downlights



Medium soft-edged distribution of light from deeply regressed lens. Secured in ceiling by attractive bezel, lensed downlights prevent direct contact or view of the lamp. Quality lens design assures low brightness, reducing high angle glare.

LD7V, LD12D, SD12D

Mounting Frame: Die-formed steel, 16 ga. vertically oriented for maximum rigidity. Comes with 4 mounting brackets to accept standard 3/4" or 1 1/2" lathing channels (by others) or 1/2" EMT pipe (by others) or optional mounting bars (1950 or 1951, see page 143.)

Ballast/Junction Box Assembly: Ballast and splice box on 16 ga. plate. Ballast assembly is mounted on snap-off junction box cover which is accessible from below without tools for inspection and replacement.

Ballast: Dual tap 120/277V, high power factor, encased and filled with a special thermally conductive insulation material.

LD7V

Fresnel Lens: 6" dia. gray colouvered risers. Regressed 1 3/4" from ceiling line. Stippling on back of lens conceals lamp image and high angle glare. White or black baffle with integral white flange.

LD12D

Prismatic Lens: 11" dia. Regressed 2 1/4" from ceiling line.

Step Baffle: White or black finish with integral white flange.

SD12D

Well shielded distribution delivers comfortable general illumination. Shallow plenum (7 1/4" deep) fresnel lens units are available with overlap splay. Fresnel lens is1 3/4" regressed above ceiling line. White bezel with integral white flange.

Finish Options (see page 142)

WHW White Reflector with White Self-Flange
BKW Specular Black Alzak® with White Self-Flange

***Reflector and Frame Options (see pages 143–145)**

LC: Chicago Plenum
A: Auxiliary Lighting
E: Emergency Lamp
F1: Fuse 120V
F2: Fuse 277V
EB1: 120V Electronic Ballast for Ceramic MH (Consult Factory)
EB2: 277V Electronic Ballast for Ceramic MH (Consult Factory)

Notes:

For a complete downlight you need to specify both the Reflector and the Frame-In Kit, (except for SD12D) SD12D: Complete luminaire is ordered as one catalog number.

1 Based on 60' x 60' Room (RCR = 3); 80/50/20% Reflectances.

• Uses standard MH or Ceramic MH lamps for use in enclosed luminaires. Glass guard is included.

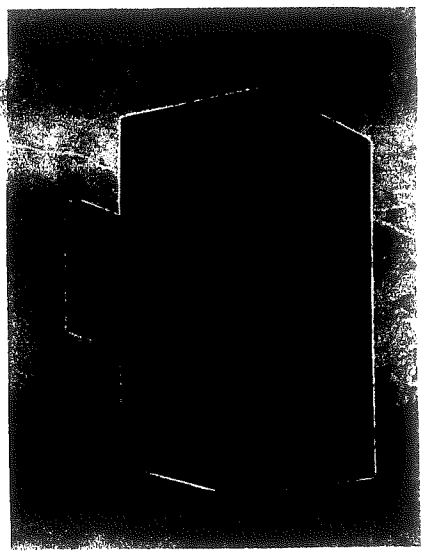
11 In addition to other normal installation instructions and markings, 250W Metal Halide Calculite with optional Auxiliary Lighting or emergency Lamp bears a Marked Spacing label indicating that the luminaire is not for residential use and that specified spacings must be maintained between:
1) centers of adjacent luminaires : 3 feet;
2) the luminaire center to side wall : 1 1/2 feet;
3) the top of the luminaire and any overhead building members : [illegible]

TYPE B # P5643-30

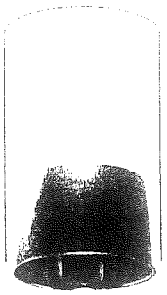
Outdoor

6" Accessories

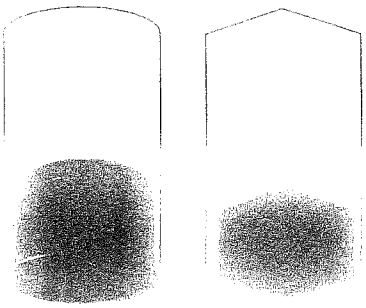
For Squares and Cylinders as specified.



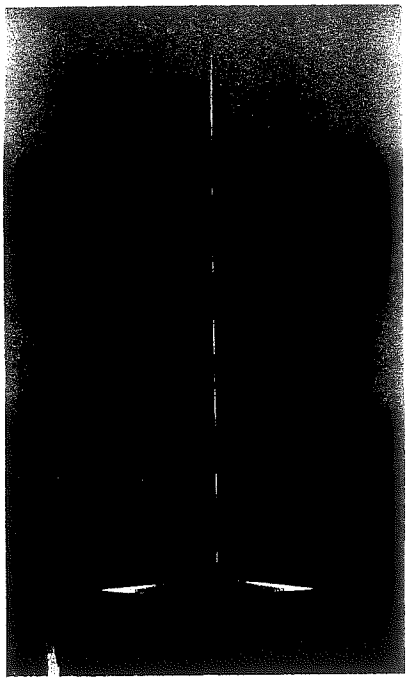
◂ **6" Square**
P5643-31 Black
P5643-20 Bronze
P5643-30 White
Size: 6" sq., 12" ht.
Extends 8-7/8". H/CTR 4-1/2".
Lamp: One medium base lamp, 250w Q PAR-38 or 150w BR-40 max.



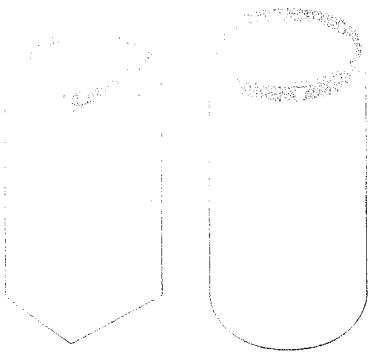
Gold Alzak reflector cone **P8703-22** For use with P5641, P5642 and P5741. Height 4".



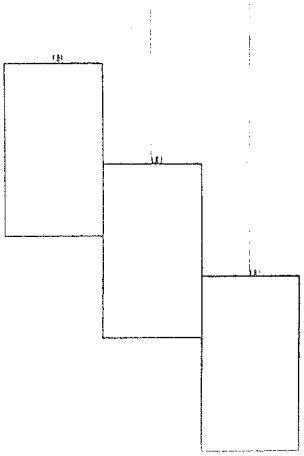
Deep Groove Step Baffles
P8710-31 For P5641, P5642 and P5741
Height 4"



▴ **6" Up/Down Square**
P5644-20 Bronze
P5644-30 White
P5644-31 Black
Directs light above and below. For use in wet locations, specify P8797-31 top cover lens.
Size: 6" sq., 18" ht.
Extends 8-7/8". H/CTR 8".
Lamps: Two medium base lamps, each 250w Q PAR-38 or 150w BR-40 max.



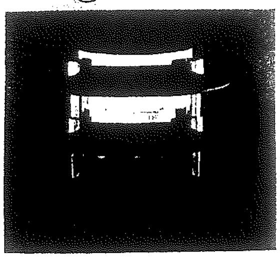
Top Cover Lenses
P8797-31 for P5644
P8798-31 for P5645
P8799-31 for P5646
Polycarbonate cylinder. Adapts up/down fixtures for wet location use. Heat and shatter-resistant clear tempered lens with black trim.



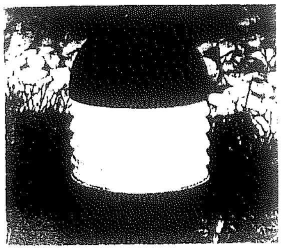
Pendant Kit
P8741-30 White
P8741-20 Bronze
P8741-31 Black
Adapts P5741 ceiling fixture to 6", 12" or 18" stem mounting. Includes canopy, hang-straight swivel, 6" and 12" sections with coupling.

TYPE C   P5209-38

Pagoda Lights

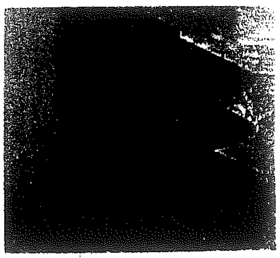


P5204-38 Green
P5204-31 Black
Cast aluminum. Clear glass liner. 1/2" NPS threaded fitting for permanent or P5233 installation.
Size: 6" dia., 7" ht.
Lamp: One medium base lamp, 100w max.

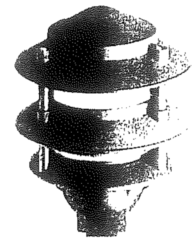


P5205-31 Black
Etched glass. 1/2" NPS threaded fitting for permanent or P5233 installation.
Size: 5" dia., 7-1/4" ht.
Lamp: One medium base lamp, 60w max.

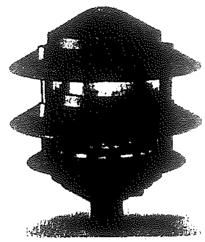
(?)



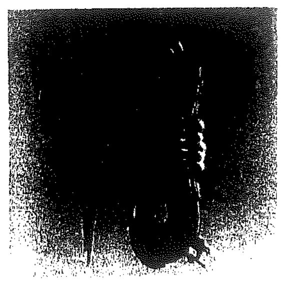
P5210-31 [illegible]
P5210-38 [illegible]
[illegible] liner. 1/2" NPS threaded fitting for permanent or P5233 installation.
Size: 10" dia., 9-1/2" ht.
Lamp: One medium base lamp, 100w max.



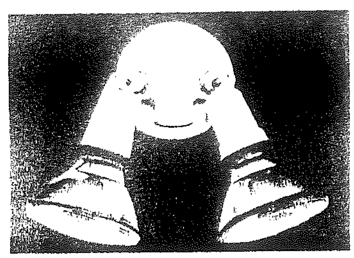
P5209-38 Green ←
P5209-31 Black
Polypropylene. Clear ribbed liner. 1/2" NPS threaded fitting for permanent or P5233 installation.
Size: 6-1/4" dia., 8-3/4" ht.
Lamp: One 7w twin compact fluorescent.



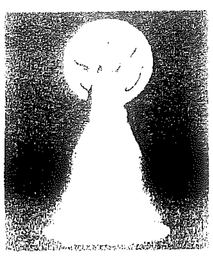
P5219-31 Black
P5219-38 Green
Cast aluminum. Clear [illegible] liner. 1/2" NPS threaded [illegible] for P8667 or P86[illegible]
Size: 6" dia., 7" ht.
Lamp: One 12-volt S.C. bayonet (#1156), 24w.



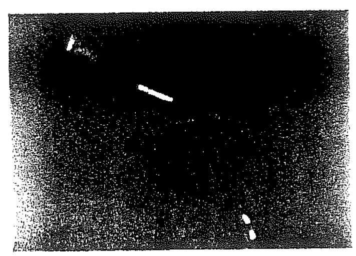
P5233-31 [illegible]
7" cast [illegible] portable [illegible]



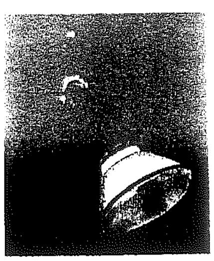
P5207-30 White
P5207-20 Bronze
P5207-31 Black
Two painted adjustable swivel floodlights.
Size: [illegible]
5-3/4" ht.
Lamps: Two PAR-38, each 150w max.



P5202-30 [illegible]
Size: 6-1/4" dia., 9" ht.
Lamp: One PAR-38.



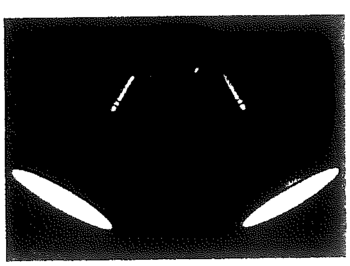
P5208-31 Black
Adjustable swivel uplight mounted [illegible]
150w max.



Size: 4-3/4" dia., [illegible] ht.
Lamp: One PAR-38, 150w max.

Lamp

S.C. Bayonet



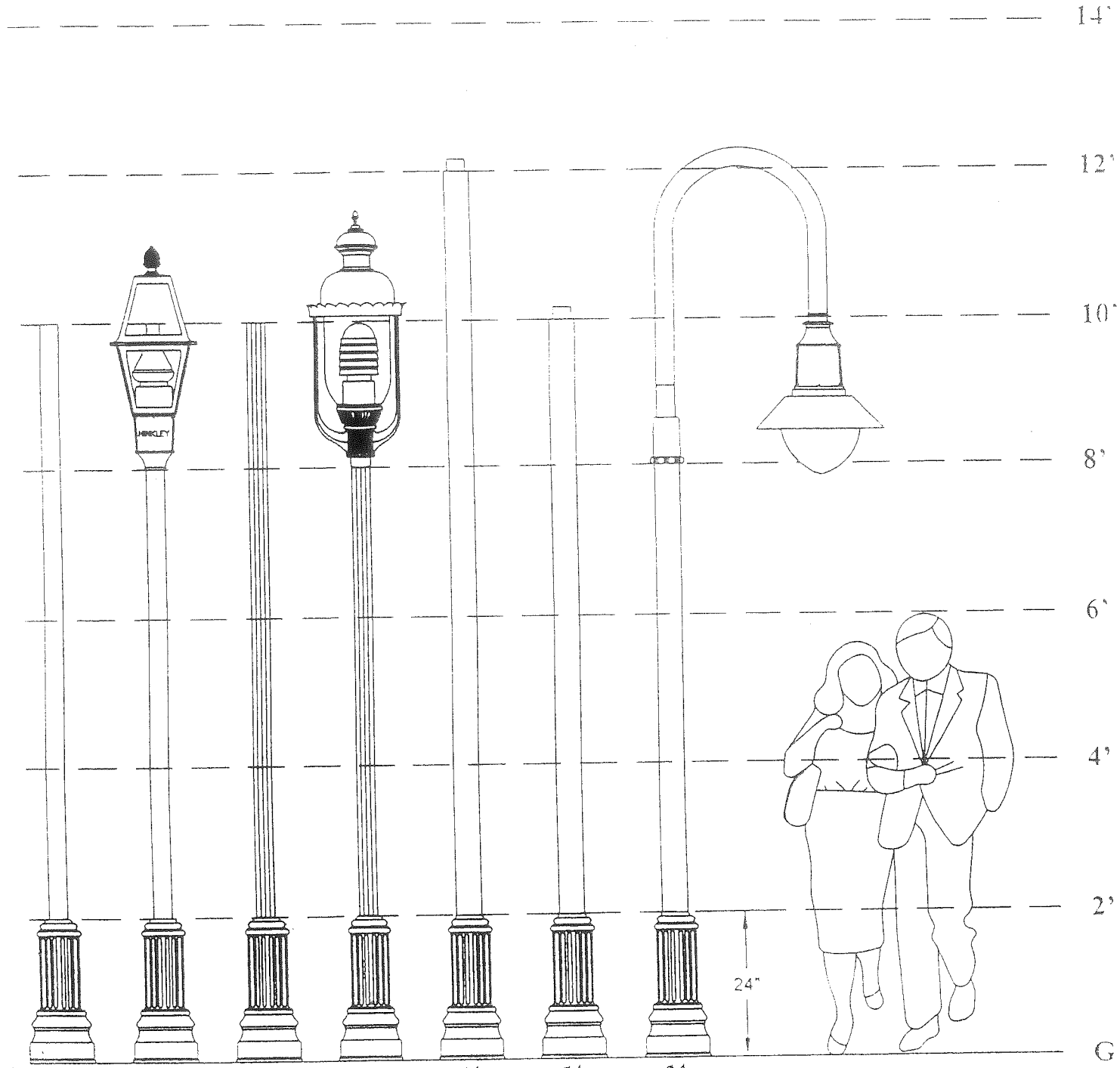
P5203-20 Bronze
P5203-31 Black
P5203-30 White
Two painted adjustable swivel floodlights. All aluminum.
Size: 6-1/4" dia., [illegible] ht.
Lamps: Two PAR-38, each 150 max.

...0 Bolton Road
Cleveland, Oh 4413...
phone 216.671.3300
fax 216.671.4137
www.hinkleylighting.com
service@hinkleylighting.com

TYPE D

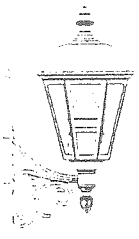
76410

Plaza

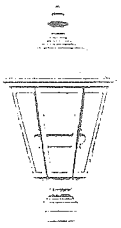


Manor House 77611/714

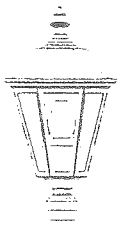
71471
PRISMATIC POLY-CARBONATE PANELS
HT.: 27 1/8"
WIDTH: 13 1/2"
FITTER I.D.: 3"
MAX WATTS:
INC. 150
M.V. 50
H.P.S. 100
M.H. 50
C.F.L. 42



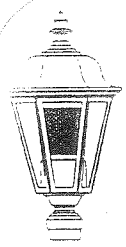
71471/70305
5" GLASS REFRACTOR
TYPE V
HT.: 27 1/8"
WIDTH: 13 1/2"
FITTER I.D.: 3"
MAX WATTS:
INC. 150
M.V. 50
H.P.S. 100
M.H. 50
C.F.L. 42



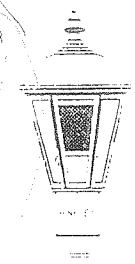
77611/70219
CONE REFLECTOR SYSTEM
TYPE V
HT.: 35 5/8"
WIDTH: 18 3/8"
FITTER I.D.: 3"
MAX WATTS
INC. 150
M.V. 175
H.P.S. 150
M.H. 175
C.F.L. 42



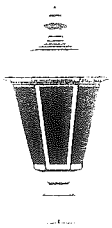
77611/70216
¾ FROSTED GLASS CHIMNEY
HT.: 35 5/8"
WIDTH: 18 3/8"
FITTER I.D.: 3"
MAX WATTS:
INC. 150
M.V. 175
H.P.S. 150
M.H. 175
C.F.L. 42



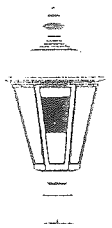
[redacted]
6" GLASS REFRACTOR
TYPE III OR V
HT.: 35 5/8"
WIDTH: 18 3/8"
FITTER I.D.: 3"
MAX WATTS:
INC. 150
M.V. 175
H.P.S. 150
[redacted]
C.F.L. 42



77611BB/70320
6" GLASS REFRACTOR
TYPE III OR V
HT.: 39"
WIDTH: 18 3/8"
FITTER I.D.: 3"
MAX WATTS
INC. 150
M.V. 175
H.P.S. 150
M.H. 175
C.F.L. 42



71471
PRISMATIC POLY-CARBONATE PANELS
HT.: 27 1/8"
WIDTH: 13 1/2"
FITTER I.D.: 3"
MAX WATTS
INC. 150
M.V. 50
H.P.S. 100
M.H. 50
C.F.L. 42



71471/70305
5" GLASS REFRACTOR
TYPE V
HT.: 27 1/8"
WIDTH: 13 1/2"
FITTER I.D.: 3"
MAX WATTS:
INC. 150
M.V. 50
H.P.S. 100
M.H. 50
C.F.L. 42

TYPE B

ORDERING GUIDE

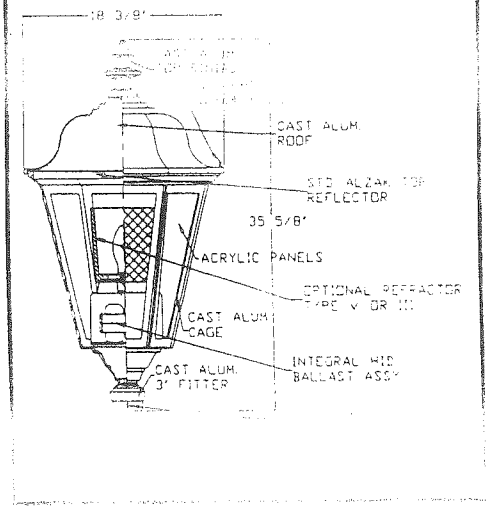
1. MODEL NUMBER
   - 77611-post mount
   - 77611BB-ballast box
   - 71471-post mount
   - For wall mount and post top brackets, see Section 3.
2. FINISH: See page 9 for selection
3. [illegible]-metal halide
   CFL-compact fluorescent
4. WATTAGE:
   77611 SERIES
   INC-150
   MV-50-75-100-175
   HPS-35-50-70-100-150
   MH-50-100-175
   CFL-26-32-42

   71471 SERIES
   INC-150
   MV-50
   HPS-35-50-70-100
   MH-50
   CFL-26-32-42
5. VOLTAGE
   77611 SERIES
   120-208-240-120/277-480-QUAD

   71471 SERIES
   120 volt-consult factory for alternative availability
6. PANELS
   - [illegible]-clear acrylic
   - [illegible]-clear polycarbonate
   - [illegible]-opal acrylic
   - [illegible]-prismatic polycarbonate
7. OPTICS (optional)
   77611SERIES
   - 70310-borosilicate glass type V distribution
   - 70320-borosilicate glass type III distribution
   - 70219-cone reflector type V distribution
   - 70218-louvered reflector type V distribution
   - 70215-houseside shield

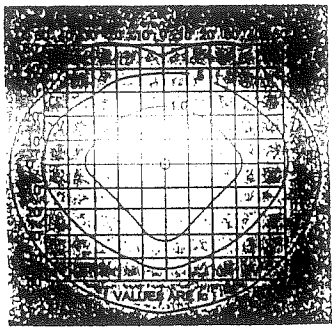
   SERIES
   - [illegible]-borosilicate glass type [illegible]
   - [illegible]-houseside shield
8. OTHER ACCESSORIES (See Section 3)

Specifications



77611/70310-175MH

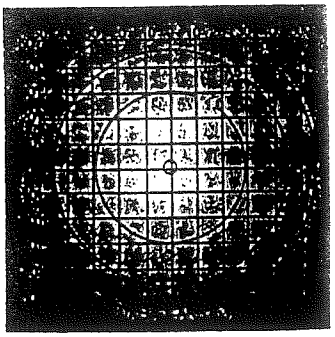
IES CLASS, TYPE III REFRACTOR
TEST REPORT NO, HL122B28
FIXTURE, 77411
LAMP, 175 MH
MTG. HT. 10'-0"
LENS, CLEAR



LAMP	35W HPS	50W HPS	70W HPS	100W HPS	150W HPS	175W MH	150W MH	100W MH	70W MH
FACTOR	.16	.29	.45	.68	1.14	1.00	.82	.56	.36

MTG HT	10'	11'	12'	13'	14'	15'	16'
FACTOR	1.0	.83	.69	.59	.51	.44	.40

IES CLASS, TYPE V REFRACTOR
TEST REPORT NO, HL122B27
FIXTURE, 77411
LAMP, 175 MH
MTG. HT. 10'-0"
LENS CLEAR



ARCHITECTURAL AREA LIGHTING
"blinking lighting"

1	2	3	4	5	6	7	8	9
MODEL	MOUNT OPTIONS	FINISH	SOURCE	WATTAGE	VOLTAGE	LENS	OPTICS	OTHER

Type E

Catalog No. VRA70MAL-6

VERTEX™ Accent Series

High Performance Mini-Flood-Accent Optics

APPLICATIONS

- Buildings, Facades, Vertical Signs, Area Lighting, Walls, Parking Lots, Security.

CONSTRUCTION

- One piece precision, die-cast aluminum, housing ribbed for efficient heat dissipation.
- Die-cast aluminum lens frame with integrally cast hinges and captive stainless steel hardware.
- Corrosion resistant Duraplex II bronze polyester powder coated finish.
- Optional designer finishes available. See page 281 in the ExceLine catalog.
- Tempered glass lens (1/8" thick) sealed to the lens frame by extruded silicone allows above horizontal aiming
- One piece captive gasket provides weather-tight seal.

ELECTRICAL

- Porcelain spring-loaded 4KV pulse rated socket-medium base.
- Clear, medium base lamp supplied with fixture.
- Starting temperature: LX(HPS)-40°F/-40°C. MA(MH)-20°F/30°C.

OPTICS

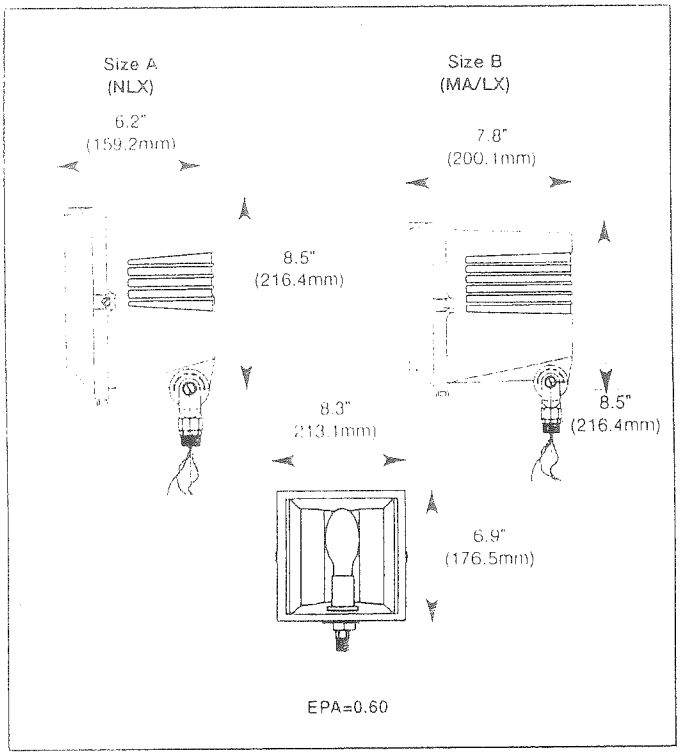
- 90° field rotatable reflector.
- Produces a narrow focused 6x5 or 5x4 distribution with reduced light spill.

MOUNTING

- 1/2" NPS threaded arm with an adjustable aiming pivot and cast-in aiming quadrants.
- Serrated teeth on pivot lock the unit into position
- Yoke mount provided with 3' cord.

WARRANTY/LISTINGS

- UL 1572 listed for wet locations.
- Published five year limited warranty.



70 to 175 Watt (MA) Metal Halide
50 to 150 Watt (LX) High Pressure Sodium

ISO 9001 Registered

ORDERING GUIDE EXAMPLE

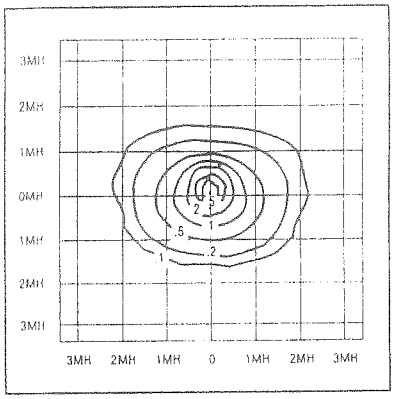
VR	A	70	MA	L	—	-	6
VR	A= Accent AY=Accent Yoke Mount	70(ED17)[1] 100(ED17)[1] 150(ED17)[1] 175(ED17)[1] 50(E/B17) 70(E/B17) 100(E/B17) 150(E/B17)	MA NLX[2] or LX[3]	L	See options/acc's end of this section.		1=120 6=120/277

[1]Voltage is 6(120/277)HX/HPF ballast
[2]Normal Power Factor. Voltage is 1(120)
[3]Voltage is 6(120/277)CWA/HPF ballast
[4]150W MA units utilize ANSI code M102 lamp

ExceLine a Cooper Lighting Company

Vertex™ Series

Accent Flood



Cat. No: VRA150LXL-#
Lamp: C150 S55 / M
Lumens: 16,000
Mtg. Hgt.: 30 ft.
Aiming Point: Tilt Angle 7.5°
Field Angle (10%) 74° H x 63° V
Beam Angle (50%) 24° H x 27° V
Accent Optics

FOOTCANDLE CORRECTION

Multiply the following factors times the footcandle values for changes in mounting height:

To Change From 20'					
New Height	10'	12'	14'	15'	16'
Factor	4.0	2.78	1.78	1.56	1.23

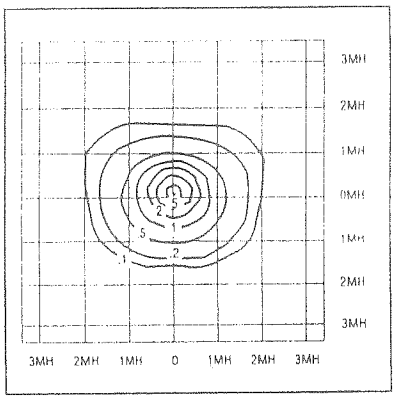
NOTE: For mounting heights other than those in table, multiply footcandle values time the following factor:

$$\text{Multiplier} = \frac{400}{(\text{Actual Mtg. Height})^2}$$

Multiply the following factors times the footcandle values for changes in lamps/watts:

50W HPS	.25	70W MA	.36
70W HPS	.40	100W MA	.57
100W HPS	.59	150W MA	.70
150W HPS	1.00	175W MA	1.00

Accent Flood



Cat. No: VRA175MAL-#
Lamp: MH175 / U / MED
Lumens: 15,000
Mtg. Hgt.: 30 ft.
Aiming Point: Tilt Angle 7.5°
Field Angle (10%) 112° H x 78° V
Beam Angle (50%) 36° H x 34° V
Accent Optics

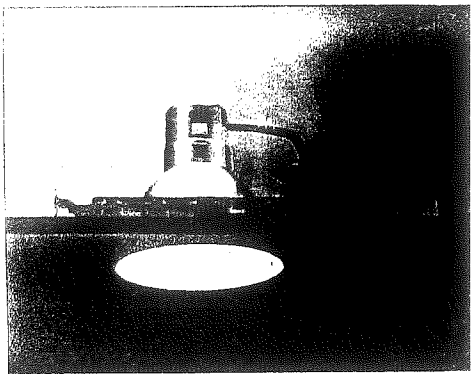
Type E

TYPE G1

Lytecaster

Incandescent

6 3/4" Reflector Trims



Open & Cross Blade

- Aperture Cone downlights utilize an Anobrite® aluminum upper reflector for excellent performance. These versatile downlights are 25% more efficient than basic black baffles, offer better glare control, and are available in a wide choice of finishes.
- Cross Blade features an aluminum louver that shields the light source and provides a soft, scallop-free beam. Excellent for corridors or lighting kitchen cabinets.

6 3/4" Aperature Cone

Reflector	
1113WH	*Matte White*

A19

100W A19 Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	14	14'
10'	8	19'

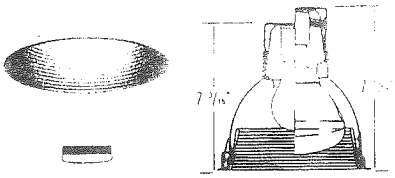
PAR38

150W PAR38 FL (T-H) Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	119	4'
10'	64	5'
12'	40	7'

Multiple Units/S.R.=0.7		
Ctr. to Ctr.	Footcandles	
	Lrg. Room	Sml. Room
	125	108
	56	48
	35	27

Frame-In Kit	Ceiling	Lamping A19	PAR38	
1104ICR𝓯	IC/Non-IC Exist	60W***	65W	75W

6 3/4" Step Baffle



Reflector	
1105	*Matte Black*
1105WH	*Matte White*

A19

100W A19 Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	11	10'
10'	6	13'
12'	4	17'

Multiple Units/S.R.=1.3		
Ctr. to Ctr.	Footcandles	
	Lrg. Room	Sml. Room
4'	37	31
6'	16	14
8'	9	8

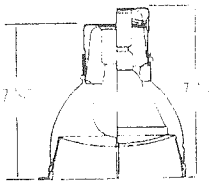
PAR38

120W PAR38 FL (T-H) Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	191	2'
10'	103	3'
12'	64	4'

Multiple Units/S.R.=0.4		
Ctr. to Ctr.	Footcandles	
	Lrg. Room	Sml. Room
4'	109	96
6'	49	43
8'	–	–

Frame-In Kit	Ceiling	Lamping A19	A21	BR30	BR40	PAR38
1102P1	Non-IC	100W	150W		150W	150W
1103R	Non-IC Exist	100W	150W		150W	150W
1104ICX*𝓯	AirSeal IC	60W			100W	90W
1100DAICM	Deep AirSeal IC	60W			100W	100W
1100DICM	Deep IC	60W			100W	100W
1104IC*𝓯	IC/Non-IC	40W		75W	65W	75W
1104ICR𝓯	IC/Non-IC Exist	40W		75W	65W	75W

6 3/4" Cross Blade



Reflector	
1132	*White*

A19

100W A19 Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	8	14'
10'	4	20'
12'	3	25'

Multiple Units/S.R.=1.8		
Ctr. to Ctr.	Footcandles	
	Lrg. Room	Sml. Room
4'	57	43
6'	25	19
8'	14	11

PAR38

150W PAR38 FL (T-H) Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	153	2'
10'	82	3'
12'	51	4'

Multiple Units/S.R.=0.4		
Ctr. to Ctr.	Footcandles	
	Lrg. Room	Sml. Room
4'	100	87
6'	45	39
8'	–	–

Frame-In Kit	Ceiling	Lamping A19	PAR30	PAR38
1102P1	Non-IC	100W		150W
1103R	Non-IC Exist	100W		150W
1104ICX*𝓯	AirSeal IC	52W	75W	
1100DAICM	Deep AirSeal IC	60W		90W
1100DICM	Deep IC	60W		90W
1104IC*𝓯	IC/Non-IC	40W	50W	
1104ICR𝓯	IC/Non-IC Exist	40W	50W	

* For nail version add suffix "N".
** 1113BK/1104ICX Lamping: 60W A19, 90W PAR38, 100W BR40.
*** 1113BK/1104IC & 1104ICR Lamping: 52W A19, 65W BR40, 75W PAR38.

𝓯 indicates Lytening Frame-In Kit. Unless otherwise noted, wattages shown for Lytening are for IC applications.

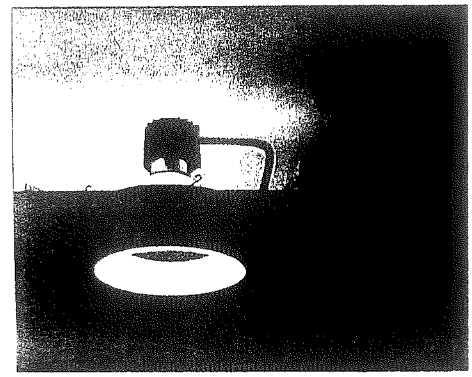
For complete listings, see pages 60–61

TYPE H #SD12D10HVWH

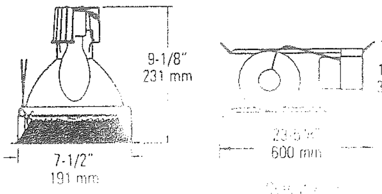
Calculite®

HID Luminaires

Lensed Downlights

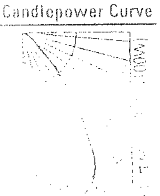


LD7V 7 1/2" Aperture



Reference Data		Coefficients of Utilization				
Reflector	LD7VWHW	%Ceiling	80	(20% Floor)		
Frame	LD7V10HA	%Wall	50	30	10	
Lamp	100W ED-17 MH	Cavity Ratio 1	.46	.45	.44	
Lamp Lumens	8000	3	.40	.37	.36	
Input Watts	126	5	.34	.32	.30	
Luminaire Lumens	3246	7	.30	.27	.25	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Application Data — Candlepower Curve

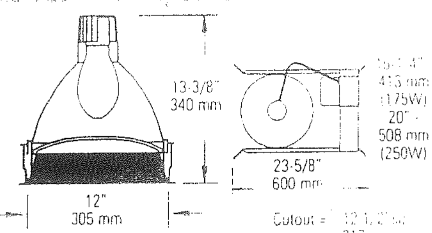


How to Specify:

Reflector + Frame Lamp (coated)

[illegible]

LD12D 12" Aperture



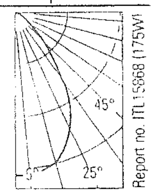
Cutout = 12 1/2" sq. 317 mm

Reference Data		Coefficients of Utilization			
Reflector	LD12DWH	%Ceiling	80	(20% Floor)	
Frame	LD12D17HB	%Wall	50	30	10
Lamp	175W ED-28 MH	Room Cavity Ratio 1	.72	.70	.68
Lamp Lumens	12000	3	.60	.57	.54
Input Watts	205	5	.51	.47	.43
Luminaire Lumens	7850	7	.44	.39	.36
Efficiency	65.4%	8	.40	.36	.32
Efficacy at 120V	38 LPW	9	.37	.32	.29
Spacing Ratio	1.0	10	.34	.29	.26

Application Data — Candlepower Curve

Multiple Units † (RCR=2)

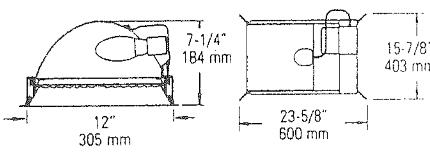
Spacing on Center	Initial Foot-candles	Watts per Sq. Ft.
[illegible]	162	[illegible]
10	79	2.05
12	55	1.42
14	40	1.05
16	31	0.80



How to Specify:

Reflector	+ Frame	Lamp (coated)
LD12D WH / BK	+ LD12D 17HB	175W ED28 / BT28 MH••
	LD12D 25HB	250W ED28 / BT28 MH•• ††
	LC, A, E, F1, F2	

SD12D 12" Sq. Aperture



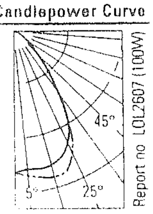
Cutout = 12 1/8" sq. 308 mm

Reference Data		Coefficients of Utilization			
Luminaire	SD12D10HVWH	%Ceiling	80	(20% Floor)	
Lamp	100W ED-17 MH	%Wall	50	30	10
Lamp Lumens	8000	Room Cavity Ratio 1	.53	.52	.51
Input Watts	126	3	.46	.43	.41
Luminaire Lumens	3855	5	.40	.37	.34
Efficiency	48.2%	7	.34	.31	.29
Efficacy at 120V	31 LPW	8	.32	.29	.27
Spacing Ratio	1.1	9	.30	.27	.24
		10	.28	.25	.23

Application Data — Candlepower Curve

Multiple Units † (RCR=2)

Spacing on Center	Initial Foot-candles	Watts per Sq. Ft.
6	109	3.50
8	61	1.97
[illegible]	48	1.55
10	39	1.26
12	27	0.88



How to Specify:

Complete Luminaire	Lamp (coated)
SD12D 70HVWH	70W ED-17 / BD-17 MH or Ceramic MH•
SD12D 10HVWH	100W ED-17 / BD-17 MH or Ceramic MH•

A, E, F1, F2, EB1, EB2

Medium soft-edged distribution of light from deeply regressed lens. Secured in ceiling by attractive bezel, lensed downlights prevent direct contact or view of the lamp. Quality lens design assures low brightness, reducing high angle glare.

LD7V, LD12D, SD12D

Mounting Frame: Die-formed steel, 16 ga. vertically oriented for maximum rigidity. Comes with 4 mounting brackets to accept standard 3/4" or 1 1/2" lathing channels (by others) or 1/2" EMT pipe (by others) or optional mounting bars (1950 or 1951, see page 143.)
Ballast/Junction Box Assembly: Ballast and splice box on 16 ga. plate. Ballast assembly is mounted on snap-off junction box cover which is accessible from below without tools for inspection and replacement.
Ballast: Dual tap 120/277V, high power factor, encased and filled with a special thermally conductive insulation material.

LD7V

Fresnel Lens: 6" dia. gray colouvered risers. Regressed 1 3/4" from ceiling line. Stippling on back of lens conceals lamp image and high angle glare. White or black baffle with integral white flange.

LD12D

Prismatic Lens: 11" dia. Regressed 2 1/4" from ceiling line.
Step Baffle: White or black finish with integral white flange.

SD12D

Well shielded distribution delivers comfortable general illumination. Shallow plenum (7 1/4" deep) fresnel lens units are available with overlap splay. Fresnel lens is 1 3/4" regressed above ceiling line. White bezel with integral white flange.

Finish Options (see page 142)

- WHW White Reflector with White Self-Flange
- BKW Specular Black Alzak® with White Self-Flange

***Reflector and Frame Options (see pages 143–145)**

- LC: Chicago Plenum
- A: Auxiliary Lighting
- E: Emergency Lamp
- F1: Fuse 120V
- F2: Fuse 277V
- EB1: 120V Electronic Ballast for Ceramic MH (Consult Factory)
- EB2: 277V Electronic Ballast for Ceramic MH (Consult Factory)

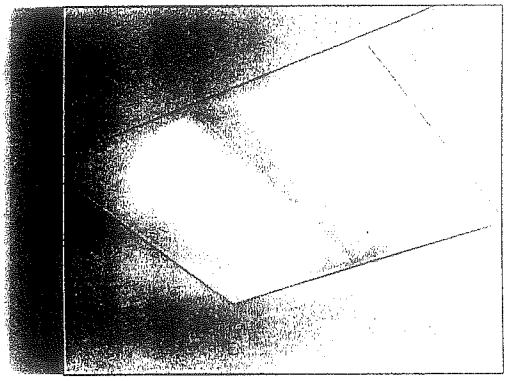
Notes:
For a complete downlight you need to specify both the Reflector and the Frame-In Kit. (except for SD12D)
SD12D: Complete luminaire is ordered as one catalog number.
† Based on 60' x 60' Room (RCR = 3); 80/50/20% Reflectances.
• Uses standard MH or Ceramic MH lamps for use in enclosed luminaires. Glass guard is included.

†† In addition to other normal installation instructions and [illegible], 250W Metal Halide [illegible] with optional Auxiliary Lighting or Emergency Lamp bears a Marked Spacing label indicating that the luminaire is not for residential use and that specified spacings must be maintained between:
1) centers of adjacent luminaires : 3 feet;
2) the luminaire center to side wall : 1 1/2 feet;
3) the top of the luminaire and any overhead building [illegible]

Lighting Systems

Recessed

Alter
2' x 2' Round Recessed



The unique new "circle in square" form of this round optic architectural luminaire creates visual interest in the ceiling while maintaining soft balanced brightness. The open look of the luminaire and sleek lamp shields blend together, making this luminaire a good lighting solution for open circulation spaces, auditoriums, private offices and spaces which call for a distinctive appearance.

Features

Utilizes high lumen 40W, 50W, 55W T5 Bi-Tube compact fluorescent lamps.

Microperforated mesh lamp shields provide a soft awareness of the light source.

Alter soft white film on inside of microperforated mesh lamp shields conceal lamp image providing balance between reflected and direct light.

95% reflective Alter soft white paint finish.

Easy access to ballast through removable circular flush reflector plate in lamp compartment.

Swing-down lamp shields for easy relamping.

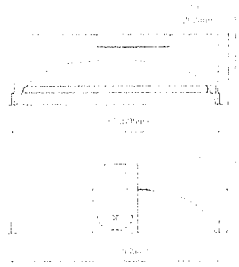
Fits standard T-grid and drywall ceilings. (Drywall kit ordered separately, see p. 20. Not suited for exposed slot T-grid ceilings)

Fully recessed luminaire and lamp compartment

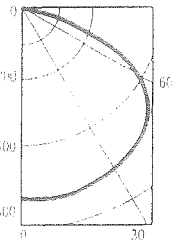
No visible welding, latches, springs, hooks, rivets or plastic supports.

Can be row mounted.

2' x 2' Round Microperforated Mesh Lamp Shields 40 Watt Biax



Candlepower Curve



Coefficients of Utilization

ROOM CAVITY RATIO	% WALL REFLECTANCE 70	50	30
1	64	61	59
3	53	47	42
5	45	37	32
7	37	29	24
10	30	22	17

20% of floor and 80% of ceiling effective cavity reflectance

REPORT NO: L50-10
LAMPS: 1 40WT5 Bi-Tube
LUMENS: 3150
EFFICIENCY: 58.2%

Reference Data

Efficiency	58.2%
Spacing Ratio	1.2
Candlepower at Nadir	964 cd

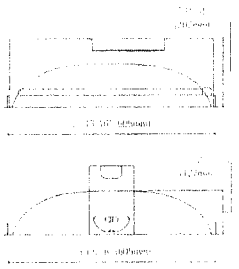
Electronic Ballast

Input Watts (1.0BF)	43W
Ballast Factor	1

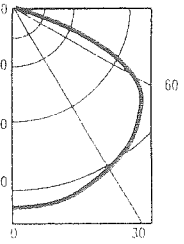
Luminaire Spacing	FC	W/Sq Ft
50' x 70' x 8.5' Space		
8' x 8' (64 sq ft/luminaire)	28	63
8' x 10' (80 sq ft/luminaire)	23	53
12' x 16' x 8.5' Space		
8' x 8' (48 sq ft/luminaire)	22	85

T5 Bi-Tube lamp rated at 3150 lumens

2' x 2' Round Microperforated Mesh Lamp Shields 50 Watt Biax



Candlepower Curve



Coefficients of Utilization

ROOM CAVITY RATIO	% WALL REFLECTANCE 70	50	30
1	59	57	54
3	49	44	40
5	41	35	30
7	35	27	23
10	28	20	16

20% of floor and 80% of ceiling effective cavity reflectance

REPORT NO: L50-15
LAMPS: 1 50WT5 Bi-Tube
LUMENS: 4000
EFFICIENCY: 53.8%

Reference Data

Efficiency	53.8%
Spacing Ratio	1.4
Candlepower at Nadir	659 cd

Electronic Ballast

Input Watts (1.0BF)	51W
Ballast Factor	1

Luminaire Spacing	FC	W/Sq Ft
50' x 70' x 8.5' Space		
8' x 8' (64 sq ft/luminaire)	33	.83
8' x 10' (80 sq ft/luminaire)	27	.74
12' x 16' x 8.5' Space		
8' x 8' (48 sq ft/luminaire)	26	1.1

T5 Bi-Tube lamp rated at 4000 lumens

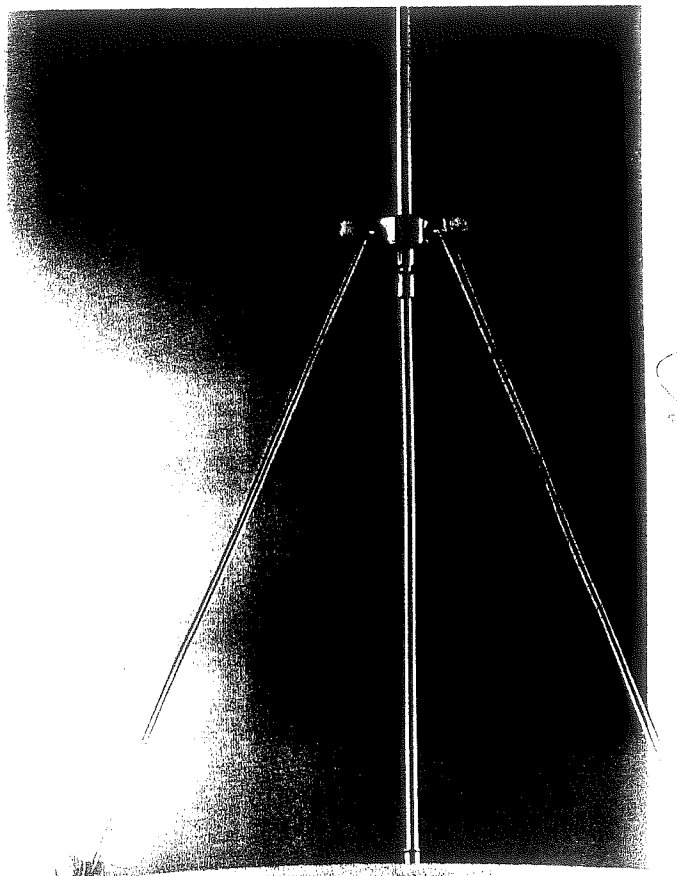
Ordering Information

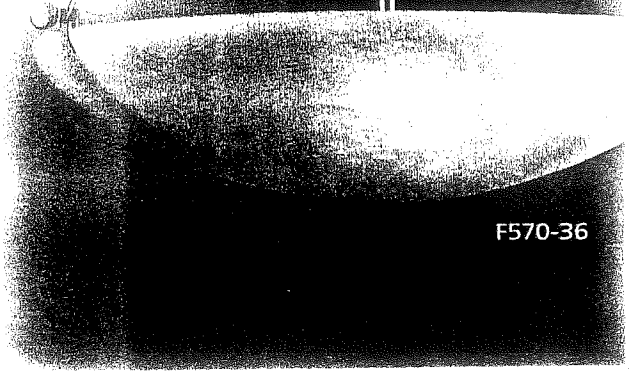
Type (Static)	Lum. length	Lum. width	Lamp qty/type	Lamp watts	Catalog no.
2' x 2'					
Microperforated Mesh	24"	24"	1-T5BT	40W	QVR2GPFOS1U4
Lamp Shields	24"	24"	1-T5BT	50W	QVR2GPFOS150
Static	24"	24"	1-T5BT	55W	QVR2GPFOS155

Standard luminaire will install into standard 2' x 2' T-grid ceilings or into drywall ceilings. When installing into drywall ceilings, specify drywall kit no. FK92x2 (see p. 20).
Luminaire does not accept emergency ballast option.

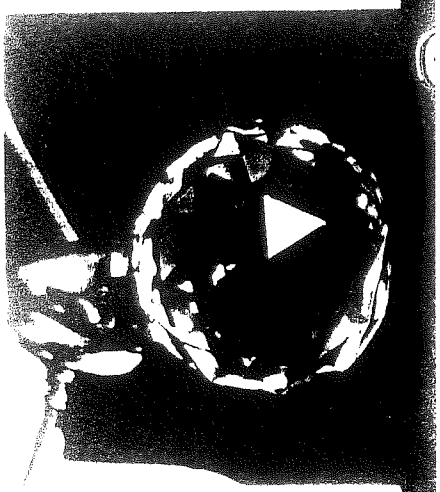
TYPE I & N

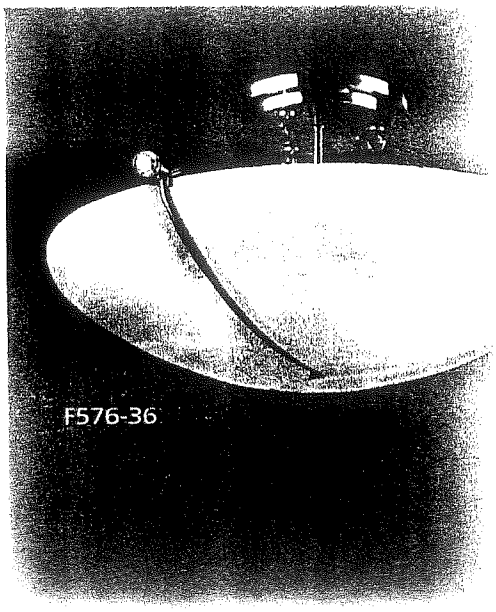
TYPE J





F570-36

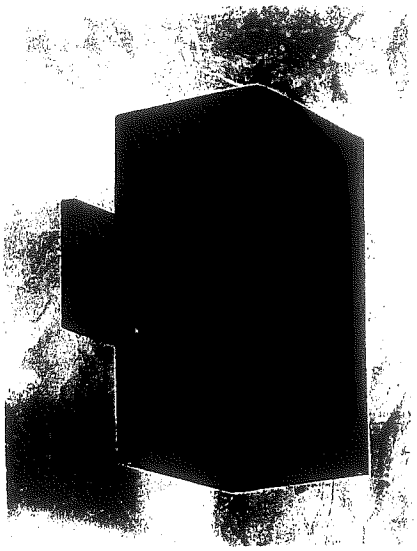




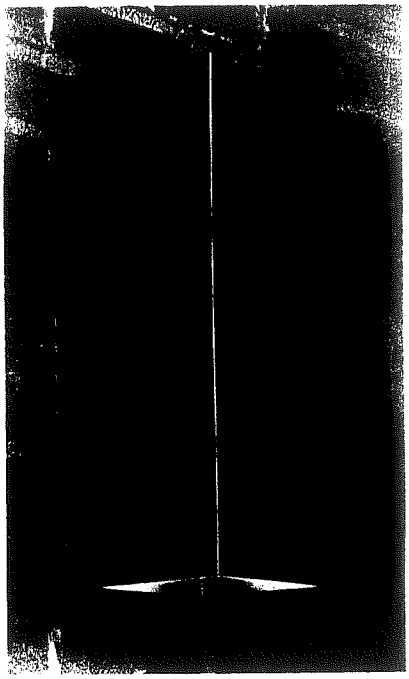
F576-36

STRASS
SWAROVSKI
COMPONENTS

TYPE K



◂ **6" Square**
P5643-31 Black
P5643-20 Bron
P5643-30 White
Size: 6" sq., 12
Extends 8-7/8"
4-1/2"
Lamp:
Base
PAR
Rate

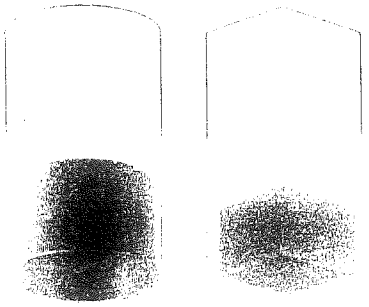


▴ **6" Up/Down Square**
P5644-20 Bronze
P5644-30 White
P5644-31 Black
Directs light above and below.
For use in wet locations, order
P8797-31 top cover lens
Size: 6" sq., 18" ht.
Extends 8-7/8" to 18"
Lamps: Two medium base
each 250w Q PAR
Rate

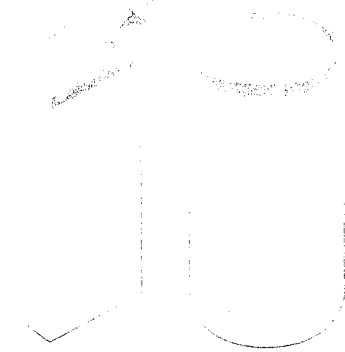
Accessories

For Squares and Cylinders as specified.

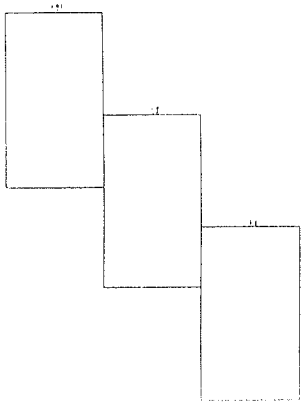
Gold Alzak
reflector cone
P8703-22 For
use with P5641,
P5642 and P5741
Height 4"



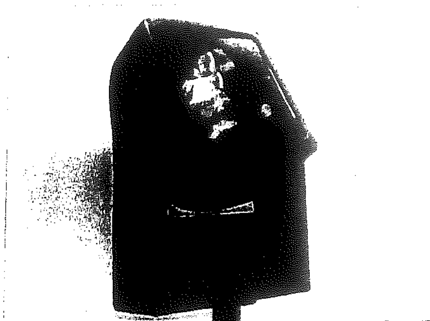
Deep Groove
Step Baffles
P8710-31 For
P5641, P5642
and P5741



Top Cover Lenses
P8797-31
P8797-
Heat and shatter
resistant clear
tempered lens
with black trim



Pendant Kit
P8741-30 White
P8741-20 Bronze
P8741-31 Black
Adapts P5741
ceiling fixture to
6", 12" or 18"
stem mounting.
Includes canopy,
hang-straight
swivel, 6" and
12" sections
with coupling.



www.wide-lite.com
KEYWORD: EFX

EFX Series
13" Housing

TYPE L

EFXM400XXQVHM-
-WHT

1598
IP65 Certified
Dust-Tight

CONSTRUCTION
- Die-cast housing.
- Lamp is isolated from ballast to ensure longer component life.
- Wiring access into optical module is sealed so dirt and other contaminants cannot enter.
- All hardware is corrosion resistant.
- Mechanical stops in the housing ensure the O-ring is properly compressed after each (re)lamping.
- Standard finish is textured black "UltraClad™" polyester electrostatically applied and oven cured. Other colors available upon request.
- Porcelain, 4KV pulse rated, grip type, mogul base socket is used to prevent lamp loosening and maintain lamp positioning.
- Lens is 7/32" tempered glass to withstand thermal and physical shock.
- Lens frame is sealed to die-cast door with an O-ring gasket to provide a sealed optical chamber.

OPTICS
- Optical assemblies are field exchangeable by a licensed electrician.
- Reflectors are field rotatable.
- Segmented reflectors employ 95% reflectivity sheet.
- Can use EAL, EFI and EWL optics.

BALLAST
- Ballast is high power factor with reliable starting down to -40°F for High Pressure Sodium, -30°F for Pulse Start, and -20°F for Metal Halide.
- Ballast coil windings are copper with Class H (180°C) rated insulation. Poly-block option is available.

INSTALLATION FEATURES
- Only one tool is needed to access optical and ballast module.
- O-ring gasketed lens door is secured by four captive screws and hinges open for easy lamp access.
- Heavy-duty unitized ballast tray includes captive screws, quick disconnect plug to optical chamber and terminal block for field connections.

WARRANTY / LISTINGS
- UL 1598 Marine Listed; Listed for Wet Location and aiming above 90°.
- IP65 Certified. Marine Grade is IP66 Certified.
- Published five year limited warranty.
- ISO 9001 Certified Facility

OPTIONS / ACCESSORIES
- See pages 22-28.

ORDERING GUIDE

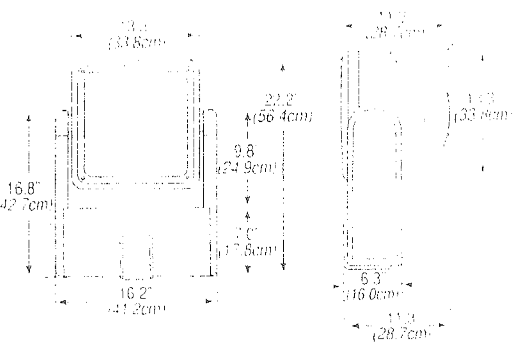
EFX	—	S	—	400	—	A	—	120	—	VM	—	**	—	TBK

Series	Lamp Type¹	Wattage	Distribution	Voltage	Mounting	Options	Finish
EFX MEFX	S = HPS M = Metal Halide P = Pulse Start	400 250 200 150	A = Wide Beam D = Square Beam E = Spot C = Narrow-By-Wide Beam	120	VM	**	TBK

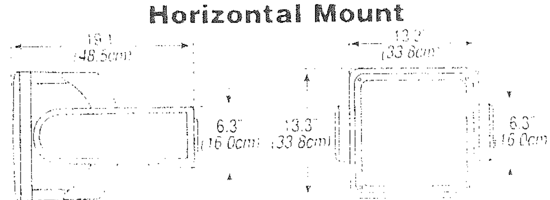
¹ Mogul E39 Base lamp provided by others.
See pages 22-28.
Available in limited wattages. Consult factory.
Lens Door Reveal painted different color from housing.
Standard finish is TBK.

DIMENSIONS

Vertical Mount

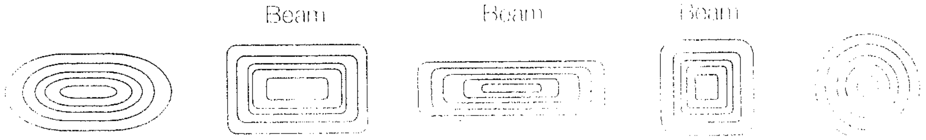


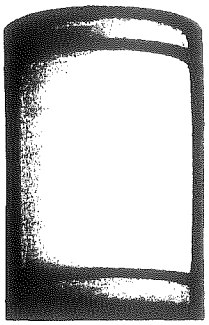
Horizontal Mount



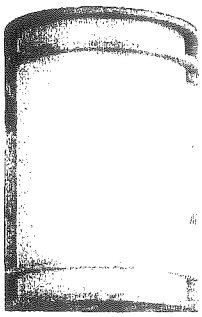
EFX Beam Patterns

Type A	Type B	Type C	Type D	Type E
Wide Beam	Rectangular Beam	Narrow-By-Wide Beam	Square Beam	Spot

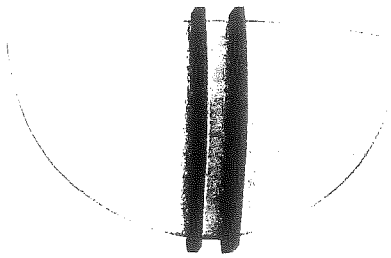




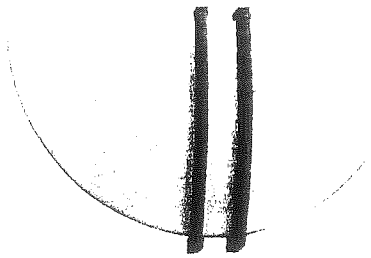
FS50740D-22 Diffuser Rust[3] ADA
FS740775CHN1 Chassis NPF Ballast[1]
FS740775CHE1 Chassis Electronic Ballast[2]
2 – TT CF 13W | 8w 10³/₄h 4ext.



FS50740D-66 Diffuser Verde Green[3] ADA
FS740775CHN1 Chassis NPF Ballast[1]
FS740775CHE1 Chassis Electronic Ballast[2]
2 – TT CF 13W | 8w 10³/₄h 4ext.

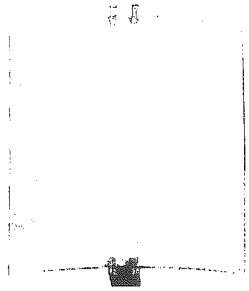


FS50741D-22 Diffuser Rust[3] ADA
FS741770CHN1 Chassis NPF Ballast[1]
FS741770CHE1 Chassis Electronic Ballast[2]
2 – TT CF 13W | 14³/₄w 8³/₄h 4ext.

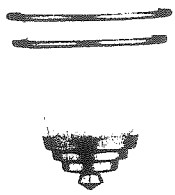


FS50741D-66 Diffuser Green Verde[3] ADA
FS741770CHN1 Chassis NPF Ballast[1]
FS741770CHE1 Chassis Electronic Ballast[2]
2 – TT CF 13W | 14³/₄w 8³/₄h 4ext.

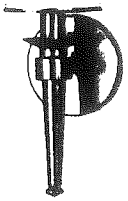
FS50775D-22 Diffuser Rust[3] ADA
FS740775CHN1 Chassis NPF Ballast[1]
FS740775CHE1 Chassis Electronic Ballast[2]
2 – TT CF 13W | 10¹/₂w 11³/₄h 3³/₄ext.



FS50775D-66 Diffuser Green Verde[3] ADA
FS740775CHN1 Chassis NPF Ballast[1]
FS740775CHE1 Chassis Electronic Ballast[2]
2 – TT CF 13W | 10¹/₂w 11³/₄h 3³/₄ext.

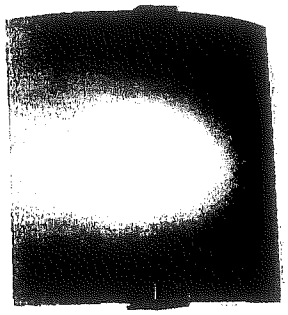


F1065-16E1 Gun Metal ADA
1 – 18W Compact Fluorescent
Quad. G24q-2 Base, 4-Pin
[illegible]w 13h 4ext. | Etched White Opal

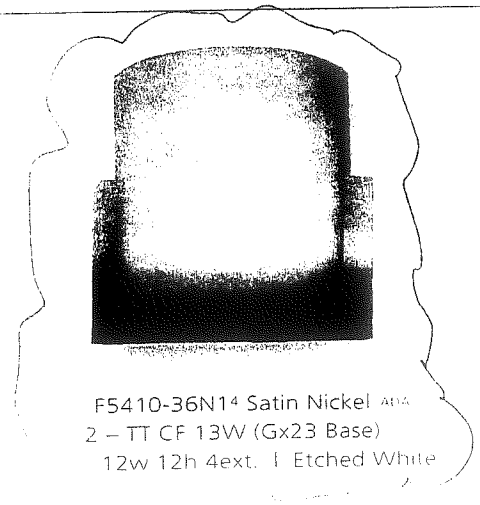


F5425-36E1 Satin Nickel ADA NEW
1 – 13W Compact Fluorescent
Quad. G24q Base, 4-Pin
4w 14h 4ext. | Etched White

F4715-36E1 Satin Nickel ADA NEW
1 – 13W Compact Fluorescent
Quad. G24q Base, 4-Pin
4w 14h 4ext. | Paper Shade



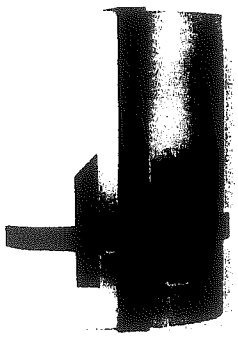
F5416-37N1[4] Satin Brass ADA
F5416-36N1[4] Satin Nickel,
2 – TT CF 13W (Gx23 Base)
11w 11³/₄h 4ext. | Textured White



F5410-36N1[4] Satin Nickel ADA
2 – TT CF 13W (Gx23 Base)
12w 12h 4ext. | Etched White

TYPE M

F5412-36E1 Satin Nickel ADA NEW
1 – 18W Compact Fluorescent
Quad. G24q-2 Base, 4-Pin
[illegible]

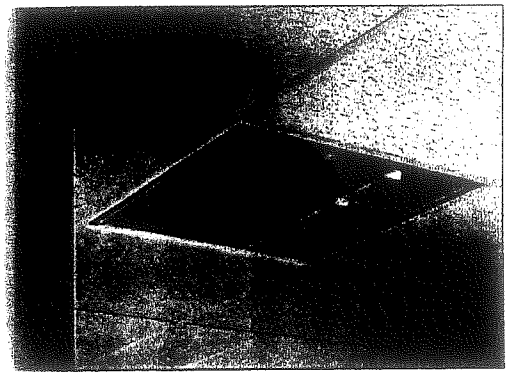


F5421-33E1 Wrought Iron ADA NEW
2 – 13W Compact Fluorescent
Quad. G24q-1 Base, 4-Pin
[illegible]ext. | Etched White

Fluorescent

Deepcel Series 2x2

3" Deep Parabolic Louver Recessed Air Handling/Static



Deepcel 2x2 parabolic troffers feature all of the design benefits of the 2x4 product. Available with T12, T8 and Biax type lamps in 9 or 16 cell configurations. For general office lighting Deepcel 2x2 is the preferred choice.

Features

- Only 5¼" deep.
- 3" deep aluminum parabolic louver.
- Vertical grain on louver eliminates reflected lamp image on cross baffle.
- 2 lamp, 9 cell (61.1% efficient).
- 3 lamp, 9 cell biax (65.2% efficient).
- Spring-loaded latches.
- Mitered aluminum louver flange
- Snap-in ballast cover.
- Louver has polyethylene dust guard
- Captive-bolt ballast mounting.
- UL-Listed twin knock-out access plate.
- Available for U-shaped Octron Curvalume or Biax Type lamps.
- Black exterior finish for cooler ballast operation.
- Metal gauge/construction to meet NYC Code or Chicago Plenum requirements is available.

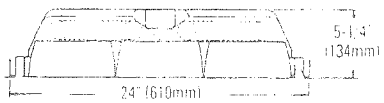
Options Page 323

Louver Finish Low iridescence semi-specular is standard. Consult factory for other finishes.
Ballast Specify voltage (120 or 277) and type and add as suffix, e.g. **120SO.**

Magnetic	Electronic	1-3 Lamp Elec.	Dimming	Power Spec Dimming
T12: **LE**	T12: **SS**	—	T12: **DIM**	—
T8: **OC**	T8: **SO**	T8: **O3**		T8: **PS**
TT5: **BX**	TT5: **SB**	TT5: **X3**		TT5: **PB**

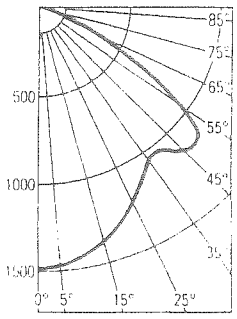
Electrical/Wiring Options For special wiring, fusing,electronic dimming ballasts, consult factory.
Plaster Frame For type F troffers, order plaster frames separately. Catalog Number: **PF22.**
Seismic Hold-Down Clip For type G troffers installed. Suffix: **4HD.**
Continuous Row Installation For F type fixtures, half-width flanges are required between fixtures. Cat. No.: **2FC TRIM** for each joint.
Air Pattern Control and Air Slot Closure For horizontal and vertical air supply and to balance return air. Catalog Number: **SC** (field installed) Suffix: **PD** (factory installed).
Heat Removal Dampers Suffix: **HRD.**
NYC Code Requirements add Prefix: **N.**
Chicago Plenum add Suffix: **CP.**

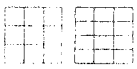
DPA2G9LS2U6120SO



Reference Data	
Efficiency	56.2%
Spacing Ratio	1.2
Electronic Ballast	
Input Watts (120V)	60.9W
Luminaire Eff. (LER)	58.2

Candlepower Curve





Ordering Information

Type	Cells	Lamps Qty/Type	Exposed T-Grid	Flanged for Dry or Plaster	Slot-T or Concealed T
Air Handling	9	2-T8U6	**DPA2G9LS2U6**	**DPA2F9LS2U6**	**DPA2T9LS2U6**
	9	2-T12U6	**DPA2G9LS2U4**	**DPA2F9LS2U4**	**DPA2T9LS2U4**
	12	2-T8U6	**DPA2G12LS2U6**	**DPA2F12LS2U6**	**DPA2T12LS2U6**
	12	2-T12U6	**DPA2G12LS2U4**	**DPA2F12LS2U4**	**DPA2T12LS2U4**
Static	9	2-T8U6	**DPS2G9LS2U6**	**DPS2F9LS2U6**	**DPS2G9LS2U6**
	9	2-T12U6	**DPS2G12LS2U4**	**DPS2F12LS2U4**	**DPS2T12LS2U4**
	12	2-T8U6	**DPS2G9LS2U6**	**DPS2F9LS2U6**	**DPS2T9LS2U6**
	12	2T-12U6	**DPS2G12LS2U4**	**DPS2F12LS2U4**	**DPS2T12LS2U4**

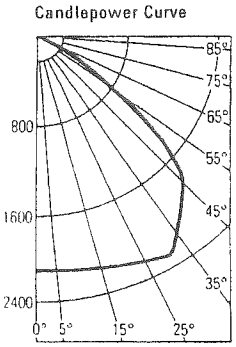
DPA2G9LS2U6	120	SO	HRD
BASIC CATALOG NUMBER: 3" Deep Precision Contoured Pre-anodized Aluminum Parabolic Louver	VOLTAGE: 120 or 277	BALLAST: See page 310	OPTIONS: See Page 310 and Page 323 Add appropriate suffix

Request Folio G50-39 REV. A/
Folio G50-40 REV. A

DPA2G9LP3U412003

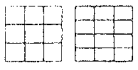
Reference Data	
Efficiency	63.1%
Spacing Ratio	1.4
Electronic Ballast	
Input Watts (120V)	83.0W
Luminaire Eff. (LER)	60.8

Candlepower Curve



TYPE O

#DPS2G9LP317 -
-12050



Ordering Information

Type	Cells	Lamps Qty/Type	Exposed T-Grid	Flanged for Dry or Plaster	Slot-T or Concealed T
Air Handling	9	3-T8U1.6	**DPA2G9LP3U4**	**DPA2F9LP3U4**	**DPA2T9LP3U4**
	12	3-T8U1.6	**DPA2G12LP3U4**	**DPA2F12LP3U4**	**DPA2T12LP3U4**
Static	9	3-T8U1.6	**DPS2G9LP3U4**	**DPS2F9LP3U4**	**DPS2T9LP3U4**
	12	3-T8U1.6	**DPS2G12LP3U4**	**DPS2F12LP3U4**	**DPS2T12LP3U4**

BASIC CATALOG NUMBER: 3" Deep Precision Contoured Pre-anodized Aluminum Parabolic Louver	VOLTAGE: 120 or 277	BALLAST: See page 310	OPTIONS: See Page 310 and Page 323 Add appropriate suffix

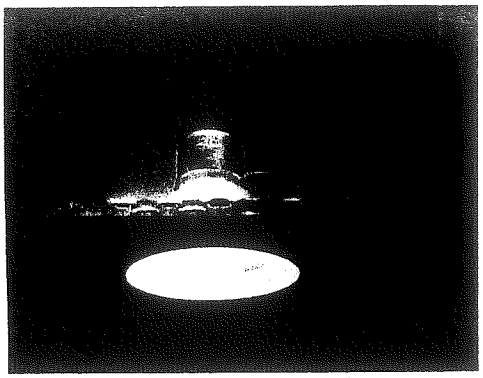
Request Folio G50-44 REV. A

TYPE P # 1102P1/1171

Lytecaster

Incandescent

6 3/4" Reflector Trims



Basic White Reflectors

Basic White Reflectors feature a low brightness splay and aluminum Perma White painted reflector that resists scratches and corrosion; an excellent choice for budget-conscious applications.

6 3/4" Basic White Reflector

Reflector	
1170M1	*Perma White*

A19

75W A19 Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	7	13'
10'	4	18'
12'	[illegible]	[illegible]

Multiple Units/S.R. = [illegible]		
Ctr. to Ctr.	Footcandles	
	[illegible]	Sml. Room
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

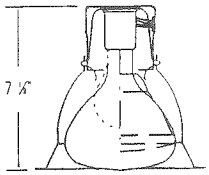
BR30

85W BR30 FL Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	22	[illegible]
10'	12	11'
12'	[illegible]	13'

Multiple Units/S.R. = 0.9		
Ctr. to Ctr.	Footcandles	
	Lrg. Room	Sml. Room
[illegible]	[illegible]	[illegible]
[illegible]	56	46
6'	26	20
8'	14	12

Frame-In Kit	Ceiling	Lamping A19	BR30	PAR38
1102P1	Non-IC	75W	85W	75W**
1103R	Non-IC Exist.	75W	85W	75W**
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1100DICM	Deep IC	[illegible]	85W	75W**
1104IC*#	IC/Non-IC		85W	75W
1104ICR#	IC/Non-IC Exist.		85W	75W

6 3/4" Basic White Reflector



Reflector	
1171	*Perma White*

A19

100W A19 Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	14	11'
10'	8	16'
12'	5	20'

Multiple Units/S.R. = 1.1		
Ctr. to Ctr.	Footcandles	
	Lrg. Room	Sml. Room
4'	61	46
6'	27	20
8'	15	12

BR40

150W BR40 FL Single Unit		
Ht. to Floor	F.C. at 30" above floor	Beam Dia.
8'	40	6'
10'	21	11'
12'	13	14'

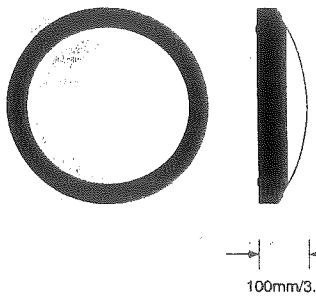
Multiple Units/S.R. = 0.8		
Ctr. to Ctr.	Footcandles	
	Lrg. Room	Sml. Room
4'	97	76
6'	43	34
8'	24	19

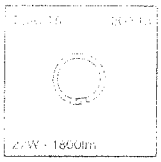
Frame-In Kit	Ceiling	Lamping A19	BR40	PAR38	R40 Heat
1102P1	Non-IC	100W	150W	150W	250W
1103R	Non-IC Exist.	100W	150W	150W	250W
1104ICX*#	AirSeal IC	60W	120W	100W	
1100DAICM	Deep AirSeal IC	60W	100W	90W	
1100DICM	Deep IC	60W	100W	90W	
1104IC*#	IC/Non-IC	52W	85W	75W	
1104ICR#	IC/Non-IC Exist.	52W	85W	75W	

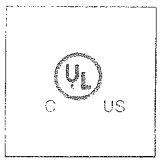
* For nail version add suffix "N".

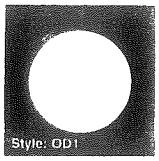
** PAR30 lamp requires medium base socket extender (1968) unless using a long neck PAR30.

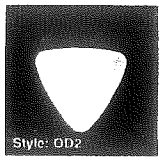
ORION
Exterior

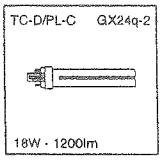


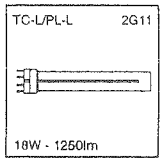


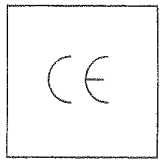












ADA

SCRIPTION

...ion is an exterior grade architectural fixture for low energy ...mpact fluorescent lamps. The product features a two part body ...ith silicon gasket, opal polycarbonate diffuser and a decorative ...etal cover. Fixtures are supplied with electronic ballasts providing the benefits of quiet operation, flicker free light, instant start, extended lamp life and reduced energy consumption. Ballasts also include 'end of life protection' which shuts down the lamps towards the end of their usable life.

GENERAL SPECIFICATION

Cover: Steel or stainless steel.

Main body: Two piece injection molded polycarbonate with silicon gasket. Body retained by stainless steel screws.

Finish: Black powder coated. Stainless steel covers are supplied with a brushed finish. Solid copper covers are supplied with a brushed, natural and untreated finish which will develop a beautiful patina when used outdoors.

Diffuser: Injection molded, opal polycarbonate

Lampholders: Fixtures supplied with 4 pin lampholders.

Ballasts: Fixtures supplied with HPF, high frequency electronic ballasts. Ballasts feature 0°F minimum starting temperature.

*Check with factory for availability.

Fixture orientation: Wall mounted.

Mechanical: Fixture mounts directly to an outlet box

Features met: Americans with Disabilities Act requirements

Approvals: UL, UL/C, CSA/US, CSA/C, CE.

Suitable for wet location. IP54

A) SPECIFY LAMP CONFIGURATION/FIXTURE TYPE

Cat Ref:	Lamp type:	Style:	Weight:	Photometrics:
31 0101	2 x 18W TC-D (PL-C)	OD1	1.4Kg/3.1lb	File # 310101
31 0102	2 x 18W TC-L (PL-L)	OD1	1.4Kg/3.1lb	File # 310102
31 0103	22W TC-C (T5) circline	OD1	1.4Kg/3.1lb	File # 310103
31 0201	2 x 18W TC-D (PL-C)	OD2	1.4Kg/3.1lb	File # 310201
31 0202	2 x 18W TC-L (PL-L)	OD2	1.4Kg/3.1lb	File # 310202
31 0203	22W TC-C (T5) circline	OD2	1.4Kg/3.1lb	File # 310203
31 1601	2 x 18W TC-D (PL-C)	OD16	1.4Kg/3.1lb	File # 311601
31 1602	2 x 18W TC-L (PL-L)	OD16	1.4Kg/3.1lb	File # 311602
31 1603	22W TC-C (T5) circline	OD16	1.4Kg/3.1lb	File # 311603

B) SPECIFY COVER

BL	Black
SS	Stainless steel
SC	Solid copper

C) SPECIFY VOLTAGE

1	120V
2	277V
3	347V*
4	230V

SPECIFICATION GUIDE

To specify a complete fixture select: A) Fixture, B) Cover and C) Voltage.

For example, to specify: Orion 2 x 18W PL-C, OD1, stainless steel, 277V.

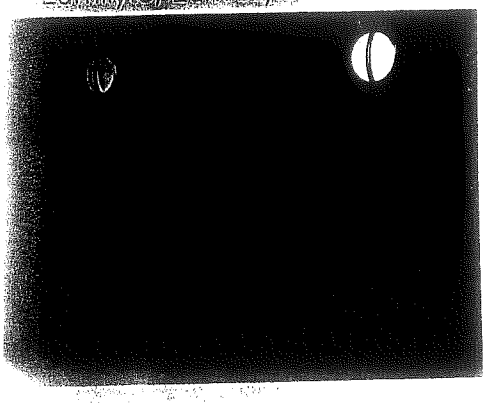
A) Fixture	B) Cover	C) Voltage
▼	▼	▼
31 0101	SS	2

TYPE Q-ALT # 4533BKE1

Decorative

ndoor/Outdoor Wall

Arco, Bristol, Lumironde, Lumilyte, Lumistyle



uggedly constructed fixtures ideally suited to alkways, exterior walls and interior halls.

ase
-cast, uminum backplate and guard. Heavy ynic-coated glass for even diffusion gasketed

ristol
Die-cast, corrosion-resistant aluminum guards and housings, full gasketing for use in wet locations. Thermal shock-resistant glass-sandblasted inside for even diffusion of light.

Lumironde/Lumiquad
Diffuser/housing of injection molded polycarbonate is one piece, sealed to inner par

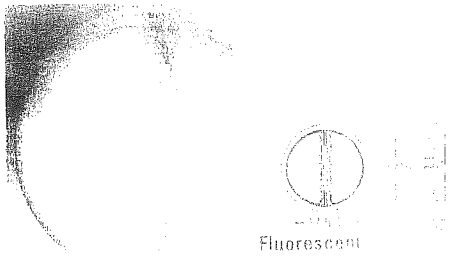
Lumistyle/Lumi
shatter-resistan
housing. Cor
tally gasketed. Wet

ce unit with injec
re diffuser. S
approved

L Listed: Suitable for Wet Locati

*7W lamp rated to start at 0° F
9W lamp rated to start at 25° F
13W lamp rated to start at 32° F

Arco Round

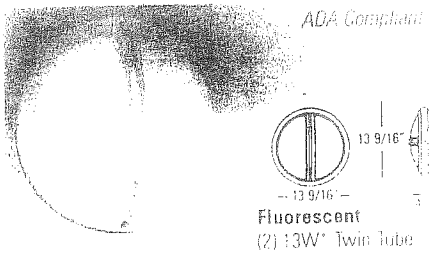


Fluorescent
(2) 26W
Magnetic

Lamp:	Incandescent (1) A19 100W Max	Fluorescent (2) 26W Magnetic
White	4533WH	4533WHH1
Black	4533BK	4533BKH1
Satin Alum	4533SA	4533SAH1

Ballast Options: H2, E1, E2

ADA Compliant

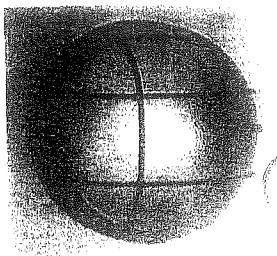


Fluorescent
(2) 13W* Twin Tube
2-Pin Magnetic

Lamp:	Incandescent (1) A19 100W Max	NPF 120V
White	4532WH	4532WHN1
Black	4532BK	4532BKN1
Satin Alum	4532SA	4532SAN1

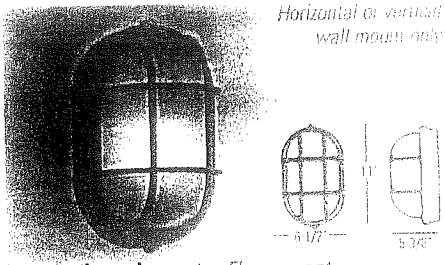
Ballast Options: H1, H2, E1, E2

Bristol



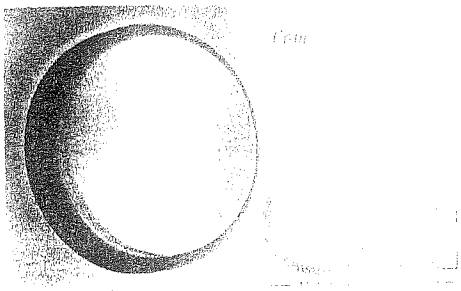
Lamp:	Incandescent (1) A19 100W Max	Fluorescent (2) 7W or 9W* Twin Tube 2-Pin Magnetic NPF 120V
White	3655WH	3625WH
Bronze	3654BZ	3624BZ
Black	3663BK	3613BK

Horizontal or vertical wall mount only



Lamp:	Incandescent (1) A19 100W Max	Fluorescent (2) 7W or 9W* Twin Tube 2-Pin Magnetic NPF 120V
White	3652WH	3622WH
Bronze	3651BZ	3621BZ
Black	3660BK	3610BK

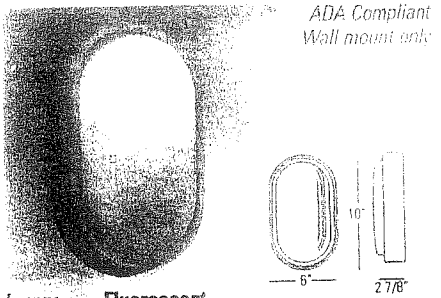
Lumironde



Fluorescent
(2) 13W* Twin Tube 2-pin Magnetic
NPF 120V

Lamp:	
White	6731WH213N1
Black	6731BK213N1

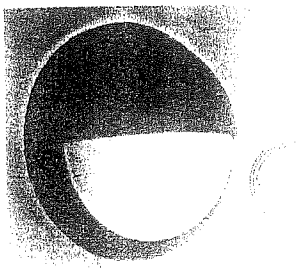
ADA Compliant
Wall mount only



Fluorescent
(1) 13W* Twin Tube 2-Pin Magnetic
NPF 120V

Lamp:	
White	6737WH
Black	6738BK

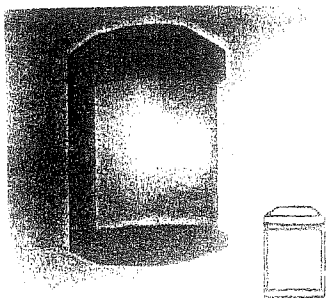
Lumilyte



Incandescent
(1) A19 75W

White	6560WH	6565WH
Bronze	6561BZ	6567BZ
Black	6562BK	6568BK

Lumistyle



Incandescent
(1) A19 75W Max

Lamp:	
White	6590WH
Black	6591BK

Thermoplastic Exit

The LT Series Thermoplastic LED Exit is a compact exit sign that blends with modern interiors through its softly rounded corners and universal mounting configuration.

Illumination
Illumination is accomplished with long-lasting, high-output Light Emitting Diodes (LEDs). LEDs and support electronics have an expected life of 25 years.

Housing
Constructed of impact-resistant, UL 94 V-0, 5 VA white thermoplastic (black is optional). NFPA-type field selectable chevrons can be installed/removed from outside the exit housing.

Electronics
120/277 VAC dual voltage input with surge-protected, solid-state circuitry. Charging system is complete with low voltage disconnect, AC lockout, brownout protection, AC indicator lamp and test switch.

Battery
Maintenance-free, sealed nickel cadmium battery with 10-year life and operating temperature range of 20°F (-7°C) to 95°F (35°C).

Code Compliance
UL 924 listed; UL damp location listing optional; NFPA 70 and NFPA 101; NEC and OSHA standards

Warranty
Electronics: 3 years
Battery: 5 years full, 5 years pro-rata

Input Power Requirements
AC Only — Red: 0.89W; Green: 2.17W
Emergency Operation — Red: 3.62W; Green: 2.79W

Options (add to end of catalog number)
SD = Self-Diagnostics
BZ = DC Buzzer (Emergency operation only)
BF = Buzzer/Flasher (Emergency operation only)
DL = UL Damp Location Listing
ST = Special Input Transformer (Specify voltage & frequency)
FA = 24 VDC Fire Alarm Interface (reg. constant DC voltage)
FL = Flasher (Emergency operation only)
2CKT1 = 120 VAC Two Circuit
2CKT2 = 277 VAC Two Circuit
TP = Tamperproof Screws (Requires TPTOOL)
LP = Low Level Matching Thermoplastic Remote Exit
LL = Low Level Institutional Frame Surface Mt. Remote Exit (see page 37)

Multiple option configurations may void UL listing. Consult factory for specifics.

Accessories (ordered separately)
SPKIT12WH(BK) = 12" Pendant Kit, White (Black)
WG4 = Wall Mount Exit Wire Guard
WG10 = Side Mount Wire Guard
PCS1 = Polycarbonate Vandal Shield

Dimensions

Front View

Canopy

5.05"
(128.3 mm)

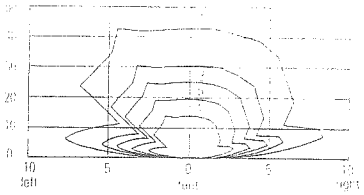
How to Specify

LT	N	1	R	W
SERIES	BATTERY	STENCIL FACES	LETTER COLOR	STENCIL FACE/ HOUSING COLOR

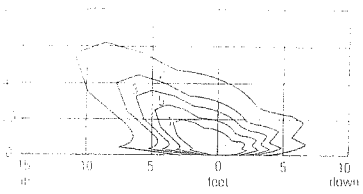
WALL MTD EMERGency Lyt

Lamp Head Photometrics

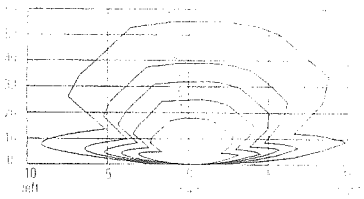
6V, 9W (Horizontal)



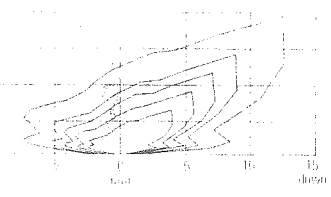
6V, 9W (Vertical)



12V, 9W (Horizontal)



12V, 9W (Vertical)



Note: Photometrics shown are for the suggested lamp. For additional photometrics, see page 52.

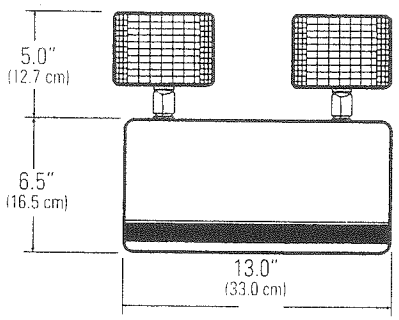
Unit Battery Capacity

DC Voltage	Unit	Suggested Lamp Head	Watts to 87% of Rated Voltage*			
			1½ hrs.	2 hrs.	4 hrs.	8 hrs.
6	E3118L	S9	18	13.5	7	—
	E3125L	S9	25	19	9.5	—
	E3136L	S9	36	27	14	7.2
	E3150L	S9	50	37.5	19	10
	E3114N	S9	14	10.5	5.5	—
	E3118N	S9	18	13.5	7	—
	E3125N	S9	25	19	9.5	—
	E3150N	S9	50	37.5	19	10
12	E3236L	S9	36	27	14	7.2
	E3250L	S9	50	37.5	19	10
	E3225N	S9	25	19	9.5	—
	E3250N	S9	50	37.5	19	10

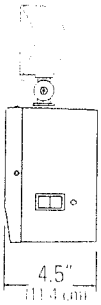
*Per NEC Specifications

Dimensions

Front View



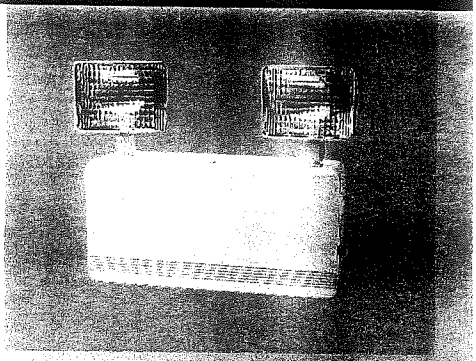
Side View



How to Specify

E3	2	50L	2	S9	W
SERIES	VOLTAGE	BATTERY/ DC WATTAGE	# OF HEADS	LAMP HEADS	HOUSING COLOR
E3 = Thermoplastic Emergency Lighting Unit	1 = 6V 2 = 12V	6V, Lead Calcium 18L = 18W 25L = 25W 36L = 36W 50L = 50W 6V, Nickel Cadmium 14N = 14W 18N = 18W 25N = 25W 50N = 50W 12V, Lead Calcium 36L = 36W 50L = 50W 12V, Nickel Cadmium	1 = One 2 = Two 3 = Three Blank = No Heads	6V S6 = 5.4W S7 = 7.2W S9 = 9W 12V S9 = 9W S12 = 12.5W S18 = 18W	W = White

(Suggested heads are listed above. For other heads, see page 48.)



The E3 Series provides egress lighting in a wide variety of wattages. The thermoplastic housing and high-performance electronics make the units ideal for commercial or industrial applications.

Illumination
Allows up to three mounted lamp heads. The standard lamp head incorporates a high-performance, parabolic reflector with a wedge base tungsten lamp.

Housing
Constructed of impact-resistant, UL 94 V-0, 5 VA white thermoplastic. Universal J-box mounting pattern, keyhole slots or shelf mounting.

Electronics
120/277 VAC dual voltage input with surge-protected, solid-state circuitry. Charging system includes low voltage disconnect, AC lockout, brownout protection, AC indicator lamp and test switch.

Battery
Choice of maintenance-free, sealed lead-calcium battery with 10-year life and operating temperature range of 65°F (19°C) to 85°F (30°C) or maintenance-free, sealed nickel cadmium battery with 12-year life and operating temperature range of 20°F (7°C) to 95°F (35°C).

Code Compliance
UL 924 listed; CUL listing for 30 minute operation. NFPA 70 and NFPA 101, NEC and OSHA standards.

Warranty
Electronics: 3 years.
Battery: 1 year full, 4 years pro-rata (lead calcium).
5 years full, 5 years pro-rata (nickel cadmium).

Input Power Requirements
120 VAC — 0.18 amps, 20W
277 VAC — 0.08 amps, 20W

Options (add to end of catalog number)
SD = Self-Diagnostics
SA = Self-Diagnostics with Alarm
SDTD = Self-Diagnostics with Time Delay
V = Voltmeter
A = Ammeter
T1 = 120 VAC Time Delay
T2 = 277 VAC Time Delay
LCK1 = Line Cord (6', 120 VAC field installed)
ST = Special Input Transformer (Specify volt. & freq.)
HI = Lamp Heads Installed at Factory

Multiple option configurations may void UL listing. Consult factory for specifics.

Accessories (ordered separately)
WG5 = Wire Guard
PCS1 = Polycarbonate Vandal Shield
MSSHELFW = White Mounting Shelf

R Series
Decorative Fixtures

Ceiling MTD Emergency lgt

R1 Series — Recessed Square Light
Suitable for indoor or outdoor applications. Rectangular, aluminum construction with a watertight, gasketed door and matte white trim. Glass diffuser drops below ceiling line.

R2 Series — Recessed Step Light
Designed for step and walkway lighting. Low profile, rectangular design with a matte white finish.

R3 Series — Recessed Round Light
Round recessed ceiling unit. Aluminum trim finished in matte white with steel backbox. Fresnel lens flush within trim.

R4 Series — Recessed Miniature Eyeball
Miniature adjustable eyeball floodlight. Steel backbox with aluminum, matte white trim. Eyeball adjusts through arc of 32°.

R5 Series — Step Light with Lens
Steel enclosure with a frosted glass lens.

Dimensions

R1 Series

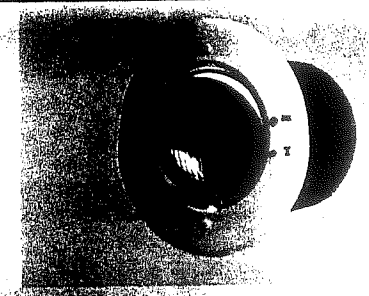
R3 Series

R4 Series

How to Specify

R1	6	6
SERIES	VOLTAGE	WATTAGE

DG Series
Decorative Fixtures



DG1 Series — Recessed Round Par 36 Gimbal
6V self-contained recessed gimbal fixture. Three year electronics warranty, one year full battery warranty, four years pro-rata.

DG2 Series — Recessed Halogen Gimbal
Remote recessed gimbal fixture. Three year warranty.

Options
RGHU = Suspended Ceiling Mounting Kit (DG1 Only)

Dimensions

DG1 Series

How to Specify (DG1)

How to Specify (DG2)

DG1	DG2	1	9T
SERIES	SERIES	VOLTAGE	WATTAGE