

LEGAL DESCRIPTION:

LOT 6 BLK 1 GARDEN RANCH ESTATES
COLORADO SPRINGS CO. DEED BY BK
2003-111

SITE DATA:

ACREAGE:

443,005 SQ. FT. (10.17 ACRES)

NAME OF DRAINAGE BASIN:

TEMPLETON GAP DRAINAGE BASIN

ZONING:

PDZ/CR HS-O

Existing Zoning: ~~PDZ/CR HS-O~~

Conditions of Record: Religious institution and child daycare center, large

1. Use shall be limited to ~~Religious Institution (Church) only~~ **Religious Institution (Church) and child daycare center, large** in the process of being amended to include Religious institution and child daycare center, large
2. The Maximum building height shall not exceed 35' and the maximum total building size shall not exceed 23,000 square feet.
3. Any proposed change of use will require a change of zoning and amended development plan to review and approved by the City Planning Commission and City Council.
4. A conservation easement shall be placed upon the northern portion of this parcel to prohibit future development.



VICINITY MAP



FLOOD ZONE INFORMATION:

FEMA map number 0804100519F does not show this site within the projected 100 year floodplain.

GENERAL NOTES:

1. Landscape improvements will be the responsibility of the owner and/or his/her assigns.
2. The landscape plan included within this plan set is a Final Landscape Development Plan.
3. All parking lots, landscape islands and vehicular circulation drives will be surrounded or bounded by 6" vertical concrete curb.
4. All sidewalk surfaces will be broom finished concrete.
5. All substandard curb & gutter, pedestrian ramps, and sidewalk adjacent to the site will need to be removed and replaced per current City of Colorado Springs standards.
6. Easements will be provided for cross access, utilities, and drainage.
7. Significant natural features are located within this property. Refer to the Land Suitability Analysis Map, located within the City Development Plan file CPC DP 02-053.
8. Wildfire Risk Management:
 - A. Residing in or near wildland interface or intermix areas involves increased fire risks that may not apply in urban or more urbanized types of developed communities (See Land Suitability Map - document part of this Development Plan submittal CPC DP 02-053).
 - B. The proposed property development, is subject to fuels management requirements. It is the responsibility of the builder to implement the fuels management procedures as defined in Section 105 in Part 1 of Article 4 of Chapter 20 of the City Code. Approval inspection must be obtained from the City Zoning Administration office prior to Final inspection by the Building Department and/or allowing occupancy of the facility. The initial fuels management inspection must be requested from the City Zoning Administration office prior to framing inspection with subsequent approval obtained prior to building final. (See Land Suitability Map - document part of this Development Plan submittal CPC DP 02-053).
9. Geologic Hazard Disclosure Statement:

This property is subject to the findings summary and conclusions of a Geologic Hazard Report prepared by Donald A. Coates, Ph.D., CD dated August 23, 1999. A copy of said report has been placed within file #0 DP 02-053 of the City of Colorado Springs. Contact City of Colorado Springs Development Review and Zoning, 30 South Nevada Avenue, Colorado Springs, CO 80903 if you would like to review the said report.
10. Preservation / No Build Area:

is identified as that portion of this development plan and clearly identified and shown. This area is set aside as a restriction for the purpose of retaining the land in its natural, scenic and open state. Further it shall be unlawful for any person to construct any structure; remove any live vegetation, soils or materials; perform any dumping, filling or grading; or otherwise disturb within the area, except for the selective removal of vegetation required by the City to comply with Wildfire Fuels Management provisions of the City Code and for the construction and installation of buffer berms, landscaping, and trails.

ARCHITECTURE/BUILDING NOTES:

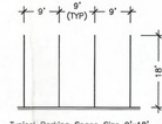
1. Gutters and downspouts shall be constructed from non-combustible material.
2. Appendages and projections: Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be a minimum of one-rated fire resistive construction, heavy timber construction or constructed of approved non-combustible material. When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 degrees to within 6 inches of the ground, with exterior wall of non-combustible or one hour fire-resistive construction, enclosed to within 6 inches of the ground, with exterior wall of non-combustible or one hour fire-resistive construction, standard gauge wire having openings not exceeding 1/2 inch.
3. Chimneys serving fireplaces, barbecues, incinerators, or decorative heating appliances in which solid or liquid fuel is used shall be provided with a spark arrester. Spark arresters shall be constructed of woven or welded wire screening of 12 USA standard gauge wire having openings not exceeding 1/2 inch.
4. Firewood and combustible material shall not be stored in unenclosed spaces beneath buildings or structures, or on decks or under eaves, canopies, or other projections or overhangs. Storage of firewood and combustible material stored in the defensible space shall be located a minimum of 20 feet from structures and separated from the crown of trees by a minimum horizontal distance of 15 feet.
5. A Class A roof covering shall be installed on all roofing and re-roofing applications.
6. Exterior walls, siding, soffits and eaves shall be of non-combustible or a minimum 1 hour rated fire resistive construction. Heavy timber or log wall construction exempted.
7. Buildings or structures shall have all under floors areas enclosed to the ground with exterior walls.
8. Exterior doors, shall be non-combustible or solid core not less than 1-3/4 inches thick. Windows within doors and glazed doors shall be tempered safety glass or multi-layered glass panels.
9. A/C vents shall be screened with wire mesh with openings no larger than 1/8 inch. Soffit vents should not be permitted.
10. Interior windows, window walls and skylights shall be tempered safety glass or multi-layered glazed panels.
11. Trash dumpster will be enclosed inside a 6' tall gated block wall enclosure as shown on the plans (see Architectural Elevation sheet #3).

LIGHTING NOTES:

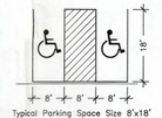
1. Lights on the building shall not exceed 10' in height from the finished grade elevation adjacent to the building.
2. The height of the pole parking lot lights shall be limited to a maximum pole height of 23' including the base.
3. All wall and parking lot light poles shall be a dark color and non-reflective, including the base.
4. All fixtures shall be shoe-box type with full cutoff features and be limited to metal halide (white) type.
5. All lighting shall be arranged to reflect away from adjoining properties and public right-of-ways, and shall be shielded to contain all direct rays of light on site.
6. Light levels from the project shall not exceed 1.0 foot-candle, as measured along the perimeter property lines.
7. Minimum lighting, except those used for the protection of the property, shall be used after 10:00 PM.
8. Interior lighting of the buildings will be controlled in order to minimize adverse negative impacts to the surrounding area.

AMENDMENT HISTORY

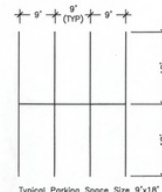
CITY FILE NUMBER	CHANGES TO PLANS	APPROVAL DATE
CPC DP 02-0253	Beth-El Mennonite Church Development Plan	(2002)
AR NV 09-00036	nonuse variance for additional wall signage	(2009)
PDZ-25-0020	minor modification to add preschool use	(Summer 2025)



PARKING DETAIL WHEN ADJACENT TO CURB



HANDICAP PARKING DETAIL



OPEN PARKING DETAIL

SHEET INDEX

1. Development Plan and Cover Sheet - Notes and Details
2. Development Site Plan
3. Building Elevations
4. Grading Plan
5. Master Facility Plan
6. Existing Tree Inventory and Protection Plan
7. Overall Landscape Plan
8. Hydrozone Map and Plant Schedule
9. Final Landscape Plan
10. Final Landscape Plan
11. Planting Detail
12. Irrigation Plan
13. Irrigation Plan
14. Irrigation Details
15. Irrigations Details

CONSULTANTS:

Architect:	Dale A. Daugherty, Architect 29 E. Bijou, Suite 18 Colorado Springs, CO	ph: (719) 635-8109
Engineer:	Berge-Brewer & Associates 28 E. Wilmette Ave. Colorado Springs, CO 80903	ph: (719) 227-7181
Landscape Architect:	Land Patterns, Inc. 411 S. Cascade Ave., #200 Colorado Springs, CO 80903	ph: (719) 578-8689
Surveyor:	Berge Brewer 28 E. Wilmette Ave. Colorado Springs, CO 80903	ph: (719) 227-7181
Traffic Engineer:	LSC Transportation Consultants, Inc. 101 N. Tejon St., #200 Colorado Springs, CO 80903	ph: (719) 633-2888
Soils Engineer:	RAC Engineers 2910 Austin Bluffs Pkwy. Colorado Springs, CO 80918	ph: (719) 548-0600
Geologic Hazard Study:	Donald A. Coates Ph.D., CG 1712 Larimer St., C-3 Colorado Springs, CO 80906	ph: (719) 338-8285
Wildfire Hazard Assessment:	Mountain High Tree Service, Inc. 506 Conopus Dr. Colorado Springs, CO 80906	ph: (719) 444-8800

OWNER:



Beth-El Mennonite Church

1219 Yuma Street Colorado
Springs, CO 80909 Telephone:
719-636-2716

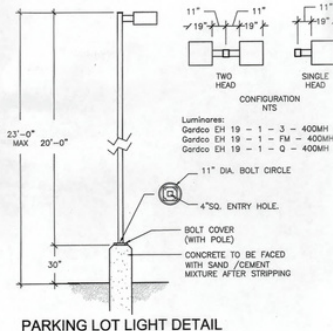
UPDATED 5-9-25

PDF PREPARATION: 04-15-04

CPC PDZ 02-052

CPC DP 02-053

1 OF 15 SHEETS



PARKING LOT LIGHT DETAIL



DALE DAUGHERTY

ARCHITECTURE AND PLANNING
10000
20 EAST MAIN, SUITE 100
COLORADO SPRINGS, CO 80903
(719) 433-8109

BETH-EL MENNONITE CHURCH

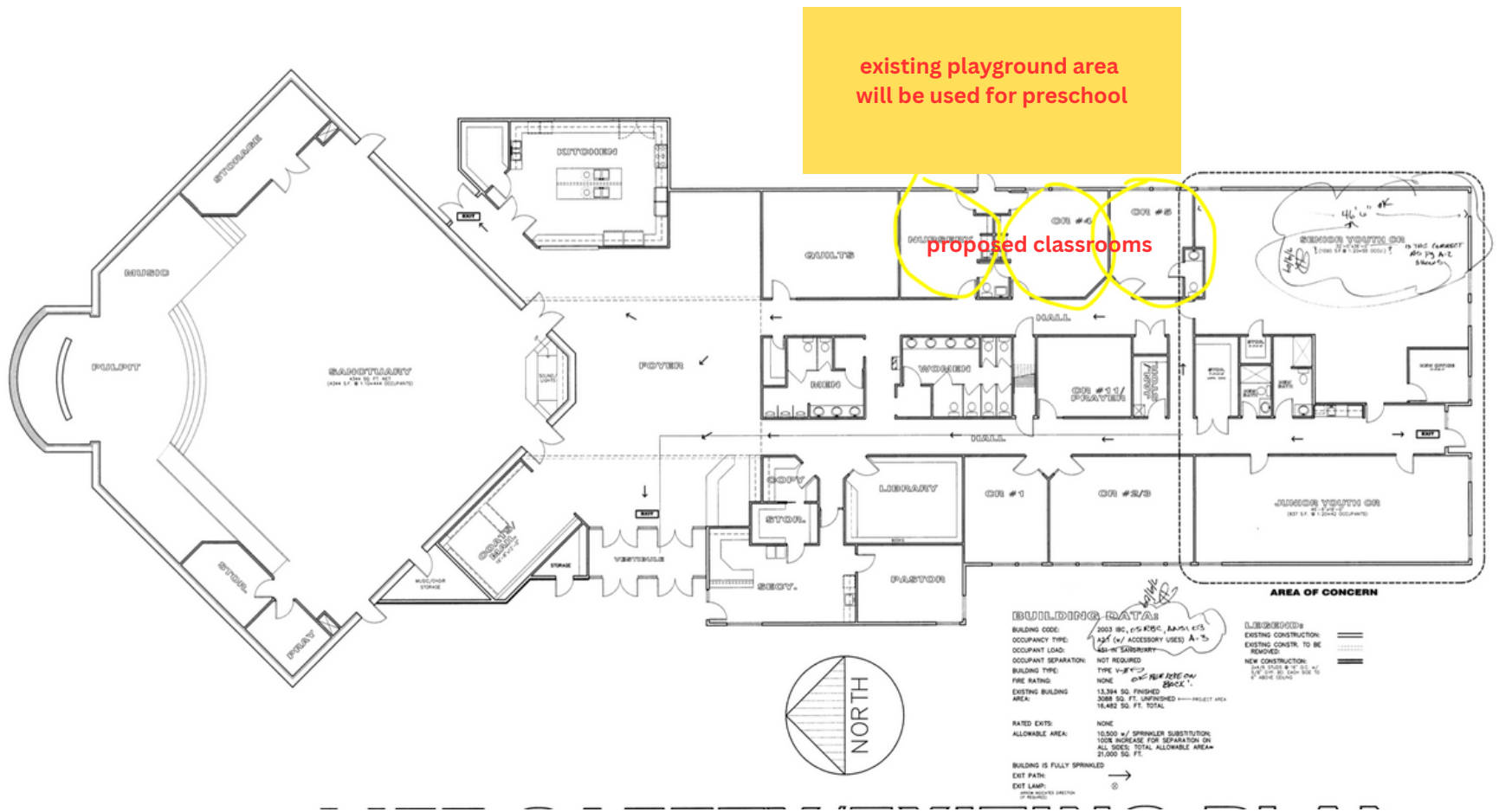
BRILLIANT CONCEPTUALIZATION 8825-0000-4

4625 RANCH DRIVE COLORADO SPRINGS

JOB NO.
FILE NO.: YOUTH/LS1
DATE: 6/9/2009
DRAWN BY: DD
REVISIONS

SHEET

LS1



existing playground area
will be used for preschool

proposed classrooms

BUILDING DATA:
BUILDING CODE: 2003 IBC, C/S KBC, AIAA C/S
OCCUPANCY TYPE: ASB (w/ ACCESSORY USES) A-3
OCCUPANT LOAD: 150-W/ SPRINKLER
OCCUPANT SEPARATION: NOT REQUIRED
BUILDING TYPE: TYPE V-B-C
FIRE RATING: NONE
EXISTING BUILDING AREA: 13,304 SQ. FT. FINISHED
3088 SQ. FT. UNFINISHED - PROJECT AREA
16,482 SQ. FT. TOTAL

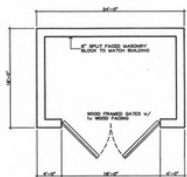
RATED EXITS: NONE
ALLOWABLE AREA: 10,500 w/ SPRINKLER SUBSTITUTION
100% INCREASE FOR SEPARATION ON
ALL SIZES. TOTAL ALLOWABLE AREA= 21,000 SQ. FT.

BUILDING IS FULLY SPRINKLED
EXIT PATH: →
EXIT LAMP: ⊗
OTHER REQUIRED DETAIL: (IF REQUIRED)

LEGEND:
EXISTING CONSTRUCTION
EXISTING CONSTR. TO BE REMOVED
NEW CONSTRUCTION
DOOR SWING & SIZE: SEE PLAN
DOOR SWING: SEE PLAN
W/ HAVE SWING



ELEVATIONS

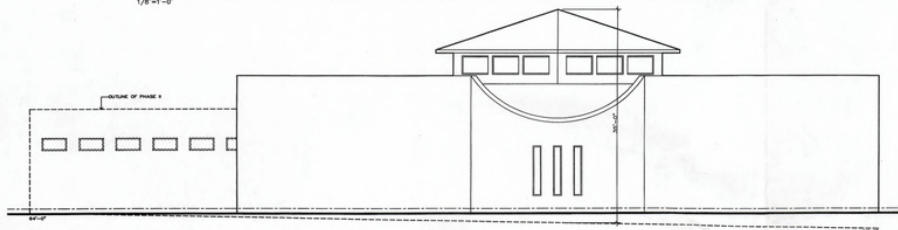


PLAN

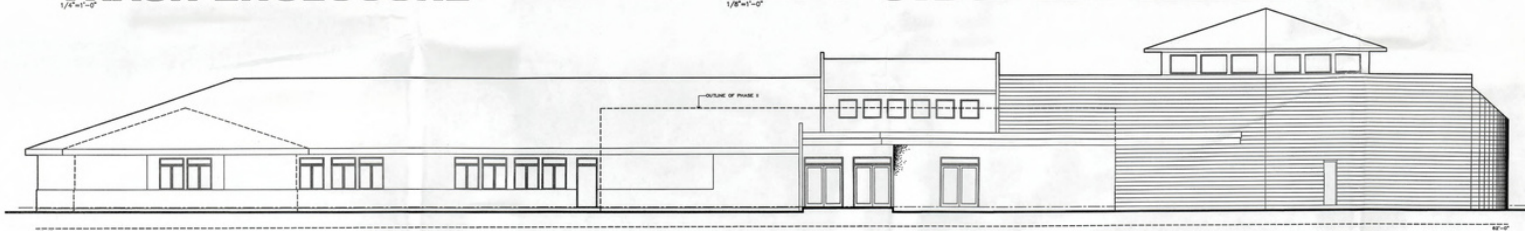
TRASH ENCLOSURE
1/8"=1'-0"



RIGHT SIDE ELEVATION
1/8"=1'-0"



LEFT SIDE ELEVATION
1/8"=1'-0"



REAR ELEVATION
1/8"=1'-0"



FRONT ELEVATION
1/8"=1'-0"

DALE DAUGHTERY

ARCHITECT AND PLANNING
COMMERCIAL AND RESIDENTIAL
25 EAST BROAD STREET, SUITE 18
DENVER, COLORADO 80202
(719) 435-1109

BETH-EL MENNONITE
CHURCH
UNION AND RANCH

JOB NO.
FILE NO.: BL/82
DATE: 4/14/2004
DRAWN BY: DD
REVISIONS

SHEET

3

OF

[illegible]

GARDEN
PLAT BO

(IN FEET)
1 inch = 50 ft.

DRYLAND PASTURE MIX
20% PASTURE ORCHARDGRASS
15% TETRAPOLOID
15% DAHURIAN MILKYR
PERENNIAL RYEGRASS
15% KY36ST, CRESTED WHEATGRASS
BROWN

15% NORDAN CRESTED
15% TETRAPOLOID,
20% LINCOLN SMOOTH

FOR BARE SOIL SEEDING:
BROADCAST METHOD: 20-25 LBS./AC. ROLL SEED IN. W/AJTE TO
STABILIZE
ALL SLOPES
DRILL METHOD: 15-20 LBS./AC. (RECOMMENDED) USE GRASS DRILL
TO KEEP SEED DISTRIBUTION EVEN. MULCH SLOPES W/ AJTE TO

[illegible]

C PUD 02-052 & CPC DP 02-053

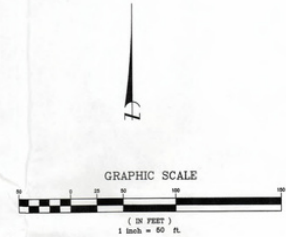
revised 10/07/02 per comments
 revised 03/22/02 per comments
 revised 03/14/02 per comments
 revised 03/12/02 per comments
 revised grading 2/13/02
 revised grading 1/31/02
 revised grading 1/08/02

5/01
 berge-brewer & associates, inc.
 711 n. coocoe avenue
 colorado springs, colorado
 (719) 227-7161

ENGINEER PLANNER SURVEYOR

SHEET BY: RGB DRAWING NO.: A-3278
 JOB NO.: 010267 SHEET 4 OF 15

LOT 6, BLOCK 1, GARDEN FLOWERS SUBDIVISION - RIDGECREST ADDITION

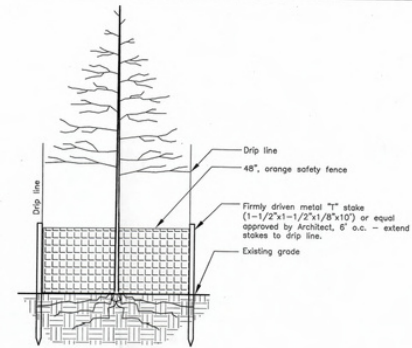


CPC PUD 02-052 & CPC DP 02-053

berge-brewer & associates, inc.

 711 north cascade ave.
colorado springs, colorado
(719) 227-7181

ENGINEERS PLANNERS SURVEYORS



NOTES:
1. Drawing/Plan is diagrammatic. Set fence to the outside edge of drip line of each plant indicated. Where not applicable, set fence as far away from tree trunk as possible, but outside of construction limits.

TREE PROTECTION

NOT TO SCALE

NOTES:
1. Viability of trees to be saved dependant on City Forester's recommendations.

TREES TO BE REMOVED

TREES TO BE SAVED

EXISTING TREE INVENTORY*

TREE ABRV.	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	REMOVE/REMAIN
elsh	1	Elaeagnus argentea	Russian Olive	1.0" dbh	To be Removed
popa	1	Populus sargentii	Plains Cottonwood	16.0" dbh	To be Removed
popa	1	Populus sargentii	Plains Cottonwood	8.0" dbh	To Remain
popa	1	Populus sargentii	Plains Cottonwood	9.0" dbh	To Remain
popa	2	Populus sargentii	Plains Cottonwood	10.0" dbh	To Remain
popa	2	Populus sargentii	Plains Cottonwood	11.0" dbh	To Remain
popa	3	Populus sargentii	Plains Cottonwood	12.0" dbh	To Remain
popa	2	Populus sargentii	Plains Cottonwood	14.0" dbh	To Remain
popa	1	Populus sargentii	Plains Cottonwood	18.0" dbh	To Remain
popa	1	Populus sargentii	Plains Cottonwood	19.0" dbh	To Remain
popa	1	Populus sargentii	Plains Cottonwood	7.0" dbh	To be Removed
popa	1	Populus sargentii	Plains Cottonwood	4.5" dbh	To be Removed
popa	1	Populus sargentii	Plains Cottonwood	10.0" dbh	To be Removed
popa	1	Populus sargentii	Plains Cottonwood	14.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	1.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	2.5" dbh	To be Removed
ulsp	2	Ulmus spp.	Elm	5.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	5.25" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	5.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	6.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	6.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	7.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	8.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	9.5" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	10.0" dbh	To be Removed
ulsp	1	Ulmus spp.	Elm	16.0" dbh	To be Removed

* Existing Tree Inventory represents only those trees with potential for disturbance in the immediate area of construction. All other trees, outside of the construction limits, are not included in the Existing Tree Inventory and are to remain, with the exception of those identified in the Wildlife Mitigation Report.

THIS DOCUMENT IS NOT A CONSTRUCTION DOCUMENT.

THIS DOCUMENT IS FOR CITY REVIEW AND APPROVAL PURPOSES ONLY.



Land Patterns, Inc.
Landscape Architects
1415 Colorado Ave., Suite 100
Boulder, CO 80502
Phone: 303.440.1111
Fax: 303.440.1112
www.landpatterns.com

Final Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

Sheet Title:
Existing Tree Inventory and Protection Plan

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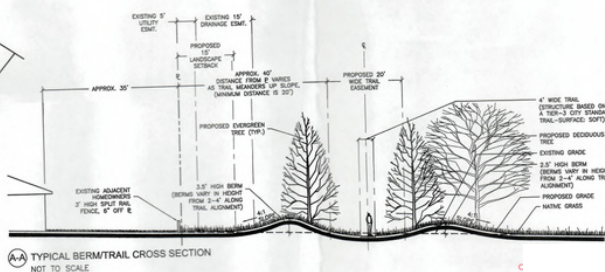
Revisions	By
PDP Revisions 10-09-02	BDK
PDP Revisions 04-15-04	DTM

Drawn By: TJSJ
Checked By: DTM
Date: 03/15/02
Scale: 1"=50'-0"
Job No.: 00027
6
6 of 15 Sheets



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CPC PUD 03-055
CPC DP 02-053

Land Patterns, Inc.

Final Landscape Development Plan
for
Beth-El Mennonite Church
4625 Ranch Drive, Colorado Springs, CO

Sheet Title:
Overall Final
Landscape
Plan

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Revisions	By
PDP Revisions 10-09-02	BDK
FDP Revisions 04-15-04	DTM

Drawn By: TSJ
Checked By: DTM
Date: 03/15/02
Scale: 1"=50'-0"
Job No.: 00027

7

7 of 15 Sheets

Appendix E SCHEMATIC LANDSCAPE DIAGRAM

Submitted in conformance with Policy 311

NAME OF PROJECT:
BETH-EL MENNONITE CHURCH

DATE:
NOVEMBER 19, 2001

REVISED:
OCTOBER 10, 2002 FDP - December XX, 2003

CLIMATE ZONE
(from Figure 4 of Landscape Policy Manual) - circle one:
FOOTHILLS FOOHILLS & PLAINS PLAINS

PLANT COMMUNITIES (to be labeled by number(s) on diagram)
1 --- Semi-arid Shrublands
2 --- Pinon-Juniper Woodlands
3 --- Prairie
4 --- Lower Elevation Riparian
5 --- Foothill Shrublands
6 --- Ponderosa Pine Forest
7 --- Upper Elevation Riparian
8 --- Douglas-Fir Forest

HYDROZONES (supplemental water - to be labeled by letter(s) on diagram)
V --- Very Low (0 to 7 inches per year)
L --- Low (7 to 15 inches per year)
M --- Moderate (15 to 25 inches per year)
H --- High (more than 25 inches per year)

Appendix F SITE CATEGORY CALCULATIONS

Submitted in conformance with Policy 312.

LANDSCAPE SETBACKS (or Double Frontage Lot Streetscape)
(See Code Section 312.01 & 312.02)

STREET NAME (LOCAL)	STREET CLASSIFICATION	REQUIRED	PROVIDED	WIDTH (FT)	LINEAR FOOTAGE	TREE / FEET REQUIRED	NUMBER OF TREES REQUIRED
UNION BLVD.	MAJOR ARTERIAL	25'	25'	700'	1/20'	36	28

SHRUB SUBSTITUTES ORNAMENTAL GRASSES SETBACK PLANT AREA DENOTED ON PLAN PERCENT GROUND PLANE PERCENT BLUEGRASS
REQUIRED PROVIDED REQUIRED PROVIDED 80 0 0 (US) 75% 100%

MOTOR VEHICLE LOTS
(See Code Section 312.01 & 312.02)

NUMBER OF PARKING SPACES PROVIDED	SHADE TREES (1/13 SPACES)	VEHICLE LOT PROVIDED	LENGTH OF FRONTAGE (FT) (EXCLUDING DRIVEWAYS)	2/3 LENGTH OF FRONTAGE (FT)
114	8	8	UNION BLVD.	225'

MIN 3' SCREENING PLANTS EVERGREEN PLANTS LENGTH OF SCREENING WALL OR BERRY PROVIDED VEHICLE LOT PLANT AREA DENOTED ON PLAN PERCENT GROUND PLANE PERCENT BLUEGRASS
REQUIRED PROVIDED REQUIRED PROVIDED 24 28 12 14 (P) (UV) 75% 100%

INTERNAL LANDSCAPING
(See Code Section 312.01 & 312.02)

NET SITE AREA (LESS PUBLIC SPACES)	PERCENT MINIMUM INTERNAL AREA (%)	INTERNAL AREA (S.F.)	INTERNAL TREES (1/200 S.F.)
268,542 S.F. (SEE NOTE #1 BELOW)	5%	13,426 S.F.	27

SHRUB SUBSTITUTES ORNAMENTAL GRASSES INTERNAL PLANT AREA DENOTED ON PLAN PERCENT GROUND PLANE PERCENT BLUEGRASS
REQUIRED PROVIDED REQUIRED PROVIDED 140 158 0 8 (I) 75% 100%

LANDSCAPE BUFFERS & SCREENS
(See Code Section 312.01 & 312.02)

STREET NAME OR PROPERTY LINE (LOCAL)	WIDTH (FT)	LINEAR FOOTAGE	BUFFER TREES (1/200')	EVERGREEN TREES (1/200 S.F.)
EAST PROP. LINE	15'	15'	287'	15
OUTSIDE BELTLINE OVERLAY	15'	15'	757'	21
INSIDE BELTLINE OVERLAY	15'	15'	558'	30
SOUTH PROP. LINE	15'	15'	331'	17
GARDEN RANCH DR.	15'	15'	17	9

LANDS OF 8' GRADE SCREENING SPACES LENGTH OF 8' GRADE SCREENING SPACES DENOTED ON PLAN PERCENT GROUND PLANE PERCENT BLUEGRASS
REQUIRED PROVIDED REQUIRED PROVIDED 287' 757' 558' 331' (EB) (SB) (NB) 75% 100%

NOTES:

1. Site category calculations are based on a net square footage of 268,542. This area equals total square footage of the property (443,000 sq. ft.) minus the area designated as Hillside Preservation/No Build Area (174,458 sq. ft.).
2. East property line length identified as total length from Garden Ranch Drive to the intersecting Hillside Preservation/No Build Area boundary.
3. Existing conditions of the hillside and natural vegetation meet the buffer requirements for the East property line within the hillside preservation/no build area.
4. See Request for Administrative Relief.

HYDROZONE MAP

Submitted in conformance with Policy 311

LANDSCAPE PHASING PLAN

Appendix G LANDSCAPE PLANT SCHEDULE

Submitted in conformance with Policy 312.

LANDSCAPE PLANT SCHEDULE							
Abbr.	Qty.	Botanical Name	Common Name	App. # Key	Mature Width	Planting Size	Notes
TREES							
arce	5	Acer rubrum 'Red Sunset'	Red Sunset Maple	5	30'-40'	1.5" cal.	
ceac	4	Celtis occidentalis	Western Hackberry	3457DA	40'-50'	1.5" cal.	
cruf	5	Crataegus crua-galli	Thornless Coddour Hawthorn	235AD	15'-20'	2.0" cal.	
fyau	16	Fraxinus pennsylvanica	Summit Ash	2457AD	30'-40'	1.5" cal.	
juc	6	Juniperus horizontalis 'Cedrogreen'	Cedrogreen Juniper	12567BD	5'	#5	
map	6	Malva 'Spring Snow'	Spring Snow Crapeflower	4875	10'-20'	1.0" cal.	
pln	21	Pinus nigra	Austrian Pine	2567BA	20'-30'	6" HL	
pln	14	Pinus nigra	Austrian Pine	2567BA	20'-30'	6" HL	
plp	6	Pinus ponderosa	Ponderosa Pine	2678D	20'-30'	6" HL	
plp	4	Pinus ponderosa	Ponderosa Pine	2678D	20'-30'	6" HL	
pos	9	Populus sargentii	Prune Cottonwood	47AD	50'	1.0" cal.	
pyac	3	Pyrus calleryana	Charlottesville Pear	5	15'	1.0" cal.	
qma	10	Quercus macrocarpa	Bur Oak	40A	40'-50'	1.5" cal.	
Percent Signature Trees: (60% minimum - Policy 311.3c)				Signature Trees: 106			
				Total No. of Trees: 114 = 93% Signature Trees			
SHRUBS							
am	23	Amelanchier alnifolia	Saskatoon Serviceberry	2570A	6'-12'	#5	
bu	4	Buddleia davidii 'nana'	Compact Lilac	45A	4'-5'	#5	
bu	6	Buddleia davidii 'White Bouquet'	White Butterfly Bush	45A	4'-5'	#5	
co	20	Cotoneaster horizontalis	Ground Cotoneaster	2345S	2'-4'	#5	
co	31	Cotoneaster lucidus	Hedge Cotoneaster	2345D	4'-6'	#5	
co	25	Cornus alternifolia	Innocent Redtwig	4575	4'-6'	#5	
ju	7	Juniperus chinensis 'Teegee'	Tea Juniper	DA	6'-10'	#5	
ju	24	Juniperus horizontalis 'Hugobon'	Hugobon Juniper	2568A	5'-6'	#5	
ju	27	Juniperus horizontalis 'Prince of Wales'	Prince of Wales Juniper	2568A	4'-6'	#5	
ju	5	Juniperus horizontalis 'Youngman'	Youngman Juniper	2568A	4'-6'	#5	
ju	18	Juniperus stricta 'Aurea'	Aurea Juniper	568A	4'-6'	#5	
ju	40	Juniperus stricta 'Blue Star'	Blue Star Juniper	568A	4'-6'	#5	
ju	8	Juniperus stricta 'Cedrogreen'	Cedrogreen Juniper	568A	4'-6'	#5	
ju	12	Juniperus stricta 'Tamariscifolia'	Tamariscifolia Juniper	568A	4'-6'	#5	
pl	26	Pinus clausa	Purple Leaf Pine	124567BA	4'-6'	#5	
ra	12	Ribes cereum	Wax Currant	2450DA	3'-4'	#5	
ru	15	Rubus idaeus	Strawberry	14567BA	3'-6'	#5	
Percent Signature Shrubs: (60% minimum - Policy 311.3c)				Signature Shrubs: 100			
				Total No. of Shrubs: 307 = 66% Signature Shrubs			
GRASSES							
sp	18	Andropogon gerardii	Big Blue Stem	12300	2'-4'	#1	
sa	8	Sorghastrum nutans	Flame Grass	2'-4'	#1		
Percent Signature Grasses: (60% minimum - Policy 311.3c)				Signature Grasses: 10			
				Total No. of Grasses: 10 = 60% Signature Grasses			
pe	71	Perovskia atrorubra	Flamingo Bush	1230	2'-3'	4" pote	
sa	48	Sorghastrum nutans	Flame Grass	N/A	4'-6'	#1	

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CPC PUB 02-052
CPC DP 02-053

Land Patterns, Inc.
Landscape Architecture
10000 E. 10th Ave., Suite 100
Denver, CO 80231
Phone: 303.755.1000
Fax: 303.755.1001
www.landpatterns.com

Final Landscape Development Plan
for
Beth-El Mennonite Church
4625 Ramon Drive, Colorado Springs, CO

Sheet Title:
Hydrozone
Map & Plant
Schedule

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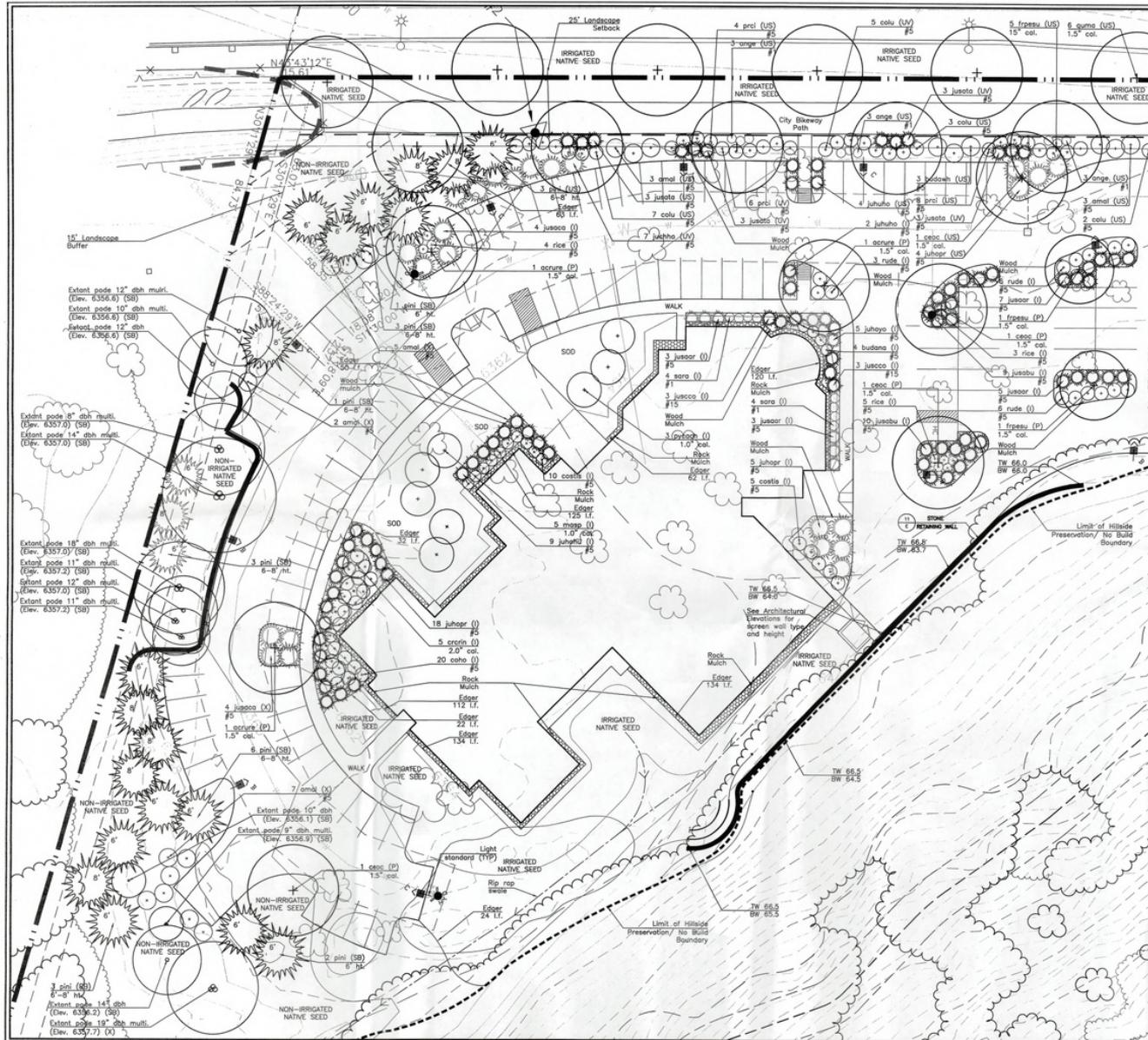
Revisions By
PDF Revisions BDK
10-09-02
FDP Revisions DTM
04-15-04

Drawn By: TSJ
Checked By: DTM
Date: 03/15/02
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Landscape Architecture
1000 North 10th Street, Suite 100
Colorado Springs, CO 80902
Phone: 719.576.1111
Fax: 719.576.1112
www.landpatterns.com

Final Landscape Development Plan
for
Beth-El Mennonite Church
4825 Ranch Drive, Colorado Springs, CO

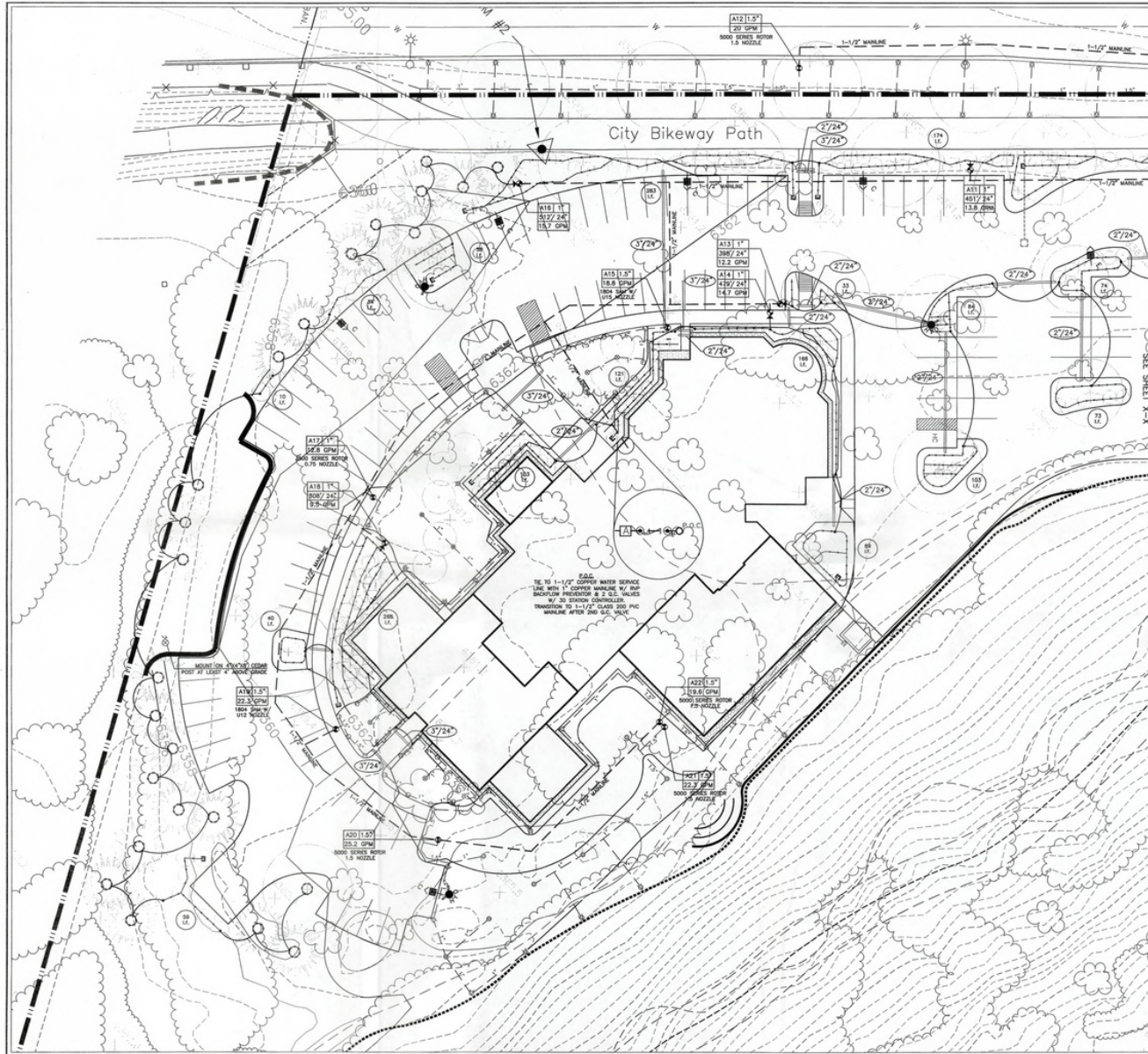
Sheet Title:
Final Landscape Plan

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Revisions	By
PDP Revisions 10-08-02	BOK
FDP Revisions 04-15-04	DTM

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Checked By: DTM
Date: 03/15/02
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Job No.: 00027

9
9 of 15 Sheets



HEAD LEGEND

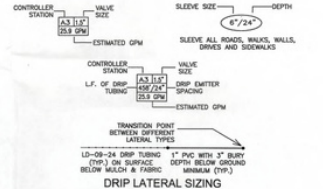
SYM	MFG	MODEL	NOZZLE	PSI	GPM	RADIUS
A	RAMBO	1804 SAW PRES	1/2" (1/2")	30	0.10	5' RAD.
B	RAMBO	1804 SAW PRES	1/2" (1/2")	30	0.20	5' RAD.
C	RAMBO	1804 SAW PRES	1/2" (1/2")	30	0.40/0.30	12-18" RAD.
D	RAMBO	1804 SAW PRES	1/2" (1/2")	30	1.30/1.05	12-18" RAD.
E	RAMBO	1804 SAW PRES	1/2" (1/2")	30	0.85/0.50	12-18" RAD.
F	RAMBO	1804 SAW PRES	1/2" (1/2")	30	0.87/0.52	12-18" RAD.
G	RAMBO	2000 SERIES	0.75 (7)	55	1.70	18" RAD.
H	RAMBO	2000 SERIES	0.75 (4)	55	0.43-0.85	18" RAD.
I	RAMBO	5000 SERIES	1.5 (7)	65	3.72	28-34" RAD.
J	RAMBO	5000 SERIES	1.5 (4)	65	1.86	28-34" RAD.
K	RAMBO	IN-LINE DRIP TUBE	LD-09-24	30	0.8 GPH/2"	DRIP
L	RAMBO	4" DIA. TRENCH	LD-09-24	30	0.8 GPH/2"	DRIP

EQUIPMENT LEGEND

SYM	MFG	MODEL	SIZE	DESCRIPTION
1	FEICO	825 1A	1.5"	#1 BOLLARD REDUCER
2	RAMBO	ESP-32-MC	32 SECTION	AUTOMATIC CONTROLLER
3	RAMBO	K22-1000CM	1"	AUTOMATIC DRIP VALVE
4	RAMBO	150-120	1.5"	AUTOMATIC VALVE
5	RAMBO	700 OF	1"	DRIP FLUSH GUN
6	RAMBO	44 LRC	1"	BACK COUNTER VALVE
7	RAMBO	502	N/A	NEW BACKUP VALVE

NOTES

- USE ALL CLASS 200 BOE SOLVENT WELD PVC PIPE (1-1/2" SIZE UNLESS OTHERWISE NOTED) FOR MAINLINES.
- USE CLASS 160 BOE SOLVENT WELD PVC PIPE (1" SIZE UNLESS OTHERWISE NOTED) FOR LATERALS.
- SLEEPING AT ALL ROADWAY CROSSINGS HAVE BEEN NOTED WITH SIZE AND DEPTH REQUIRED. SLEAVE ALL VALVES OR DIMENSIONED WITH CLASS 200 PVC PIPE SIZED THREE (3) TIMES THE PIPE DIMENSION. CROSSINGS SHALL BE IN SEPARATE 2" CLASS PVC SLEEVES PARALLEL TO MAINLINE SLEEVES.
- INSTALL 1/4" EMT IRIGATION WIRING BETWEEN ALL ELECTRIC SOLENOID VALVES AND CONTROLLER. USE KING BROTHERS CONNECTORS FOR ALL UNDERGROUND WIRE CONNECTIONS.
- INSTALL ALL HEADS ON SWING PIPE RISER ASSEMBLIES AS SHOWN ON DETAIL SHEET.
- INSTALL 7/8"-3/4" MATED MANUAL DRINK VALVES AT ALL LOW POINTS ALONG MAINLINE (NOTE ON AS-BUILT). MINIMUM OF ONE PER 200' OF MAINLINE REQUIRED.
- THIS DESIGN IS BASED ON DESIGNER PROVIDING 1-1/2" PVC WITH 3" BURY (TYP.) ON SURFACE. MINIMUM OF 80 PSI STATIC PRESSURE AND ADEQUATE A MAXIMUM FLOW OF 50 GPM THROUGH ANY VALVES FOR MANUFACTURER SPECIFICATIONS.
- REFER TO IRRIGATION DETAIL SHEETS FOR FURTHER DETAILS, NOTES, AND VALVE SCHEDULE.



Note: LOCATION OF ALL SLEEVING AND MAINLINE IS DIAGRAMMATIC ONLY. ROUTE ALL EQUIPMENT THROUGH LANDSCAPED AREAS AND SLEAVE UNDER ALL HARDSCAPE AS REQUIRED TO CONNECT LANDSCAPED AREAS.

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Land Patterns, Inc.
Landscape Architecture
1000 South Main Street, Suite 100
Fort Collins, CO 80521
Phone: 970.225.1111
Fax: 970.225.1112
www.landpatterns.com

BETH-EL MENNONITE CHURCH
4625 RANCH DRIVE
COLORADO SPRINGS, CO

Sheet Title:
Irrigation Plan

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10-09-02
FDP Revisions
04-15-04

Drawn By: BOK

Checked By: JMH

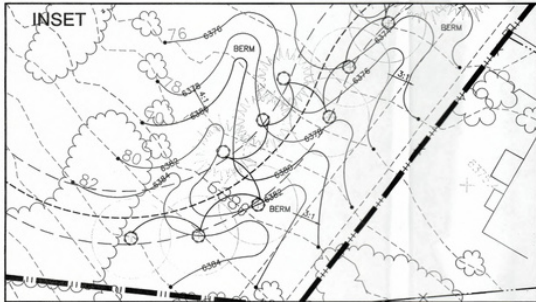
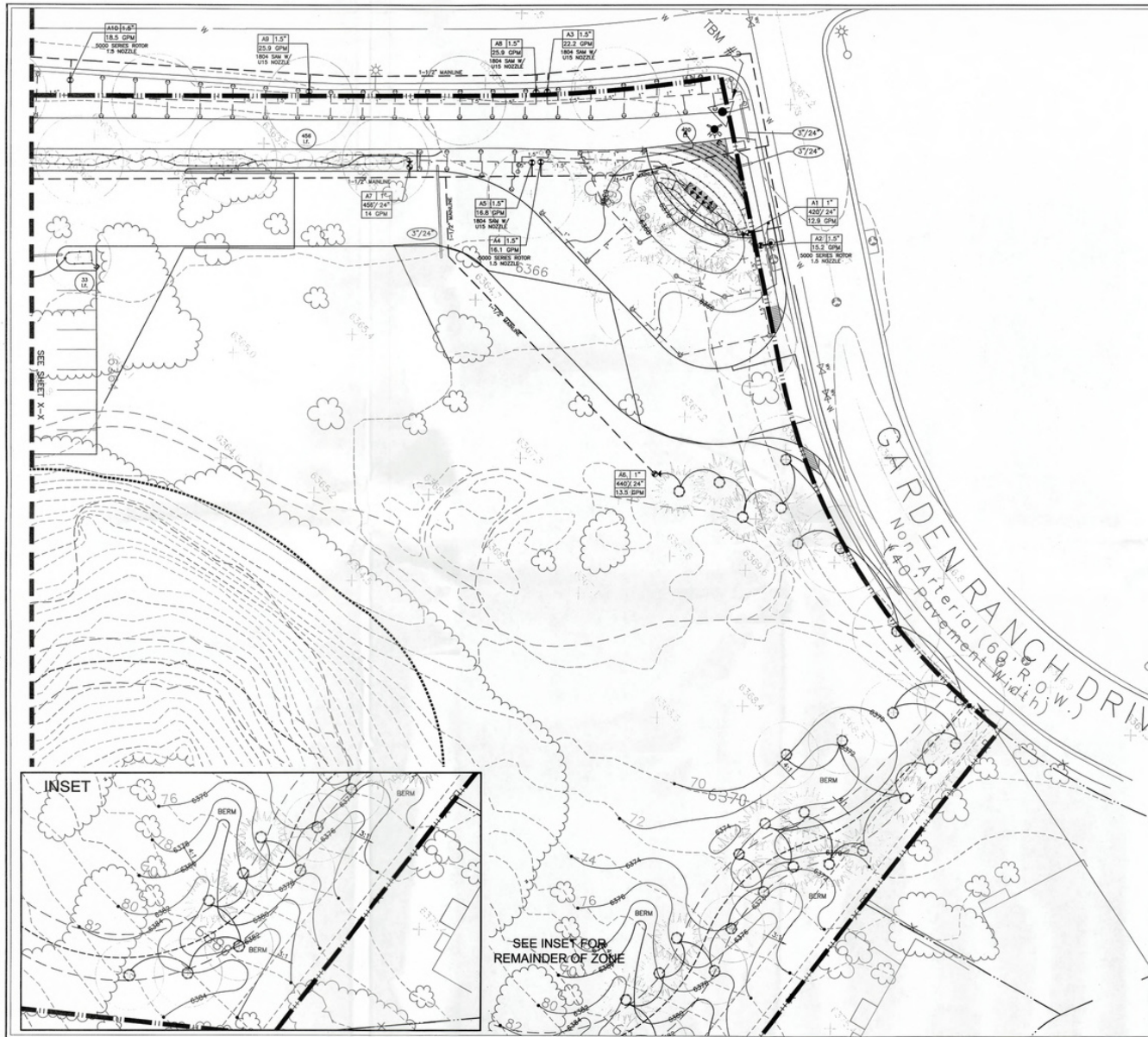
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HEAD LEGEND

SYM	MFG	MODEL	NOZZLE	PSI	GPM	RADIUS
A	RAABIRD	1804 S&W PDS	MPS 50	30	0.10	5' RAD.
B	RAABIRD	1804 S&W PDS	MPS 50	30	0.30	5' RAD.
C	RAABIRD	1804 S&W PDS	U12/U15 (1)	30	2.62/3.10	12-15' RAD.
D	RAABIRD	1804 S&W PDS	U12/U15 (0)	30	1.30/1.85	12-15' RAD.
E	RAABIRD	1804 S&W PDS	U12/U15 (2)	30	0.65/0.92	12-15' RAD.
F	RAABIRD	1804 S&W PDS	U12/U15 (3)	30	0.87/1.23	12-15' RAD.
G	RAABIRD	3500 SERIES	0.75 (0)	55	1.70	18' RAD.
H	RAABIRD	3500 SERIES	0.75 (0.6)	55	0.43-0.65	18' RAD.
I	RAABIRD	5000 SERIES	1.5 (0)	65	3.72	28-34' RAD.
J	RAABIRD	5000 SERIES	1.5 (0.6)	65	1.88	28-34' RAD.
K	RAABIRD	M-LINE DRIP TUBE	LD-09-24	30	0.9 GPH/FT	DRIP
L	RAABIRD	4\"/>				

EQUIPMENT LEGEND

SYM	MFG	MODEL	SIZE	DESCRIPTION
1	FMCO	852-1A	1.5"	POINT OF CONNECTION
2	RAABIRD	ESP-32-MC	32 SECTION	W/ BACKFLOW PREVENTER
3	RAABIRD	X12-1000CM	1"	AUTOMATIC DRIP VALVE
4	RAABIRD	150-PEB	1.5"	AUTOMATIC VALVE
5	RAABIRD	700 OF	1"	DRIP FLUSH CAP
6	RAABIRD	44 LRC	1"	QUICK COUPLED VALVE
7	RAABIRD	502	N/A	RAN SANDFLOT SENSOR

NOTES

- USE ALL CLASS 200 BOC SOLVENT WELD PVC PIPE (1-1/2" SIZE UNLESS OTHERWISE NOTED) FOR MAINLINES.
- USE CLASS 180 BOC SOLVENT WELD PVC PIPE (1" SIZE UNLESS OTHERWISE NOTED) FOR LATERALS.
- SLEEVING AT ALL ROADWAY CROSSINGS HAVE BEEN NOTED WITH SIZE AND DEPTH REQUIRED. SLEEVE ALL WALKS OR DRIVEWAYS WITH CL200 PVC PIPE SIZED THREE (3) TIMES THE PIPE DIAMETER CARRIED. WIRE CROSSINGS SHALL BE IN SEPARATE 2" CL200 PVC SLEEVE PARALLEL TO MAINLINE SLEEVE.
- INSTALL #14PTE IRRIGATION WIRING BETWEEN ALL ELECTRIC SOLVENTED VALVES AND CONTROLLERS. USE KING BRIDGES CONNECTING FOR ALL UNDERGROUND WIRE CONNECTIONS.
- INSTALL ALL GOODS ON DRINK PIPE WIRE ASSEMBLIES AS SHOWN ON DETAIL SHEET.
- INSTALL ALL VALVES IN AMETEK #10-170 BOXES WITH EXTENDING AS REQUIRED.
- INSTALL 75"-3/4" MATCO MANUAL DRAIN VALVES AT ALL LOW POINTS ALONG MAINLINE (NOTE ON AS-BUILT). MINIMUM OF ONE PER 300' OF MAINLINE REQUIRED.
- THIS DESIGN IS BASED ON OWNER PROVIDING 1-1/2" METER & WATER SUPPLY WITH A MINIMUM OF 80 PSI STATIC PRESSURE AND ASSUMES A MAXIMUM FLOW OF 30 GPM THROUGH ANY VALVE(S) PER MANUFACTURERS SPECIFICATIONS.
- REFER TO IRRIGATION DETAIL SHEETS FOR FURTHER DETAILS, NOTES, AND VALVE SCHEDULE.

CONTROLLER

STATION	VALVE	SIZE	SLEEVE SIZE	DEPTH
1	FMCO	852-1A	1.5"	3'
2	RAABIRD	ESP-32-MC	32 SECTION	3'
3	RAABIRD	X12-1000CM	1"	3'
4	RAABIRD	150-PEB	1.5"	3'
5	RAABIRD	700 OF	1"	3'
6	RAABIRD	44 LRC	1"	3'
7	RAABIRD	502	N/A	3'

TRANSITION POINT

LD-09-24 DRIP TUBING 1" PVC WITH 1" DRIP TUBING ON SURFACE BELOW WELCH & FURBER. DEPTH BELOW GROUND MINIMUM 10" (1').

DRIP LATERAL SIZING

Note: LOCATION OF ALL SLEEVING AND MAINLINE IS DIAGRAMMATIC ONLY. ROUTE ALL EQUIPMENT THROUGH LANDSCAPED AREAS AND SLEEVE UNDER ALL HARDSCAPE AS REQUIRED TO CONNECT LANDSCAPED AREAS.

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CPC PUD 02-053
CPC DP 02-053

FINAL LANDSCAPE & IRRIGATION DEVELOPMENT PLAN

for

BETH-EL MENNONITE CHURCH

4625 RANCH DRIVE
COLORADO SPRINGS, CO

Irrigation Plan

Sheet Title:

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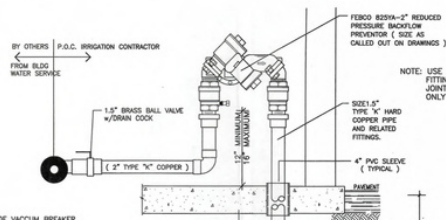
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Job No.: 00027

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WINTERIZATION PROCEDURE

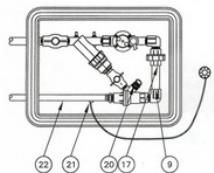
1. SHUTOFF BALL VALVE UPSTREAM OF VACUUM BREAKER.
2. CLOSE BOTH BALL VALVES ON BACKFLOW PREVENTOR.
3. OPEN VACUUM BREAKER PETCOCKS.
4. ATTACH AIR COMPRESSOR (250 CFM @ 50 PSI) TO HOSE AND ATTACH TO QUICK COUPLER DOWNSTREAM OF BACKFLOW PREVENTOR ONLY. DO NOT BLOW COMPRESSED AIR THROUGH BACKFLOW PREVENTOR.
5. CHANGE MAINLINE WHILE OPERATING VALVES ONE AT A TIME FOR APPROXIMATELY 4 MINUTES EACH ZONE AND REPEAT TILL ALL WATER VENTED THROUGH HEADS.
6. DETACH COMPRESSOR AND OPEN AT LEAST ONE MANUAL MAINLINE DRAIN TILL SPRING STARTUP.
7. LEAVE POWER TO CONTROLLER 'ON' BUT SWITCH PROGRAMMING BUTTON TO 'MAN SHUTDOWN'.

SPRING START-UP PROCEDURE

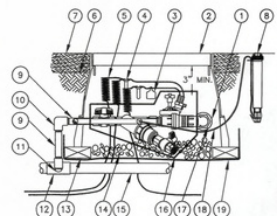
1. CLOSE MAINLINE ISSUES INCLUDING PETCOCKS ON VACUUM BREAKER.
2. INSERT QUICK COUPLER KEY TO ALLOW VENTING OF AIR FROM MAINLINE UPON FILL PROCESS.
3. SLOWLY OPEN BALL VALVE UPSTREAM OF VACUUM BREAKER.
4. SLOWLY OPEN EACH BALL VALVE AT VACUUM BREAKER IN SUCCESSION UPSTREAM THEN DOWNSTREAM ALLOWING WATER TO FILL MAINLINE USING CAUTION AGAINST BURNING SYSTEM.
5. OPERATE EACH ZONE VALVE. CHECK FOR ANY ADJUSTMENTS OR REPAIRS NECESSARY.
6. PROGRAM CONTROLLER FOR SPRING OPERATION TIME SETTINGS.

'RP' BACKFLOW PREVENTOR DETAIL

NOT TO SCALE



- 1 PVC SCH 80 NIPPLE (CLOSE)
- 2 VALVE BOX WITH COVER: AMETEX 10-150 JAMBO SERIES
- 3 ID TAG: RAIN BIRD SERIES
- 4 WATER PROOF CONNECTION: RAIN BIRD SPLICE-1 (1 OF 2)
- 5 30-INCH LINEAR LENGTH OF WIRE COILED
- 6 FINISH GRADE
- 7 TOP OF MULCH
- 8 MICRO SPRAY POP-UP: RAIN BIRD XP-600X WITH SHUTOFF NOZZLE PAINT ORANGE FOR ZONE INDICATOR
- 9 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 10 PVC SCH 40 ELL
- 11 PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- 12 PVC MAINLINE
- 13 BRICK (1 OF 4)
- 14 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 15 PVC MAINLINE
- 16 CONTROL ZONE KIT: RAIN BIRD MODEL XC2-1000DM
- 17 PVC SCH 80 UNION FOR SERVICING ASSEMBLY
- 18 RAINBIRD DT-025 DISTRIBUTION TUBING
- 19 LANDSCAPE FABRIC WRAP
- 20 3/4\"/>

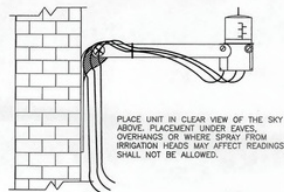


- 1 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 2 VALVE BOX WITH COVER: AMETEX 10-150 JAMBO SERIES
- 3 ID TAG: RAIN BIRD SERIES
- 4 WATER PROOF CONNECTION: RAIN BIRD SPLICE-1 (1 OF 2)
- 5 30-INCH LINEAR LENGTH OF WIRE COILED
- 6 FINISH GRADE
- 7 TOP OF MULCH
- 8 MICRO SPRAY POP-UP: RAIN BIRD XP-600X WITH SHUTOFF NOZZLE PAINT ORANGE FOR ZONE INDICATOR
- 9 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
- 10 PVC SCH 40 ELL
- 11 PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
- 12 PVC MAINLINE
- 13 BRICK (1 OF 4)
- 14 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- 15 PVC MAINLINE
- 16 CONTROL ZONE KIT: RAIN BIRD MODEL XC2-1000DM
- 17 PVC SCH 80 UNION FOR SERVICING ASSEMBLY
- 18 RAINBIRD DT-025 DISTRIBUTION TUBING
- 19 LANDSCAPE FABRIC WRAP
- 20 3/4\"/>

INSTALLER TO PROVIDE A MINIMUM 1/2"x4\"/>

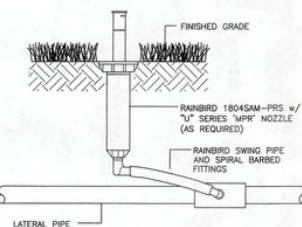
DRIP VALVE ASSEMBLY IN VALVE BOX

NOT TO SCALE



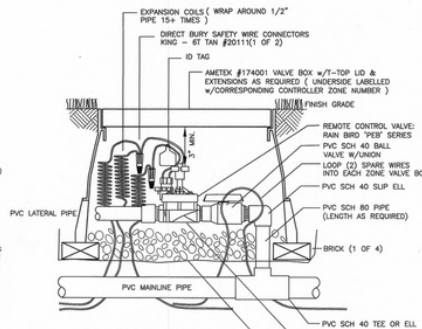
HUNTER MINI-CLIK II RAIN SENSOR

NOT TO SCALE



SPRAY SPRINKLER W/ SWING PIPE DETAIL

NOT TO SCALE



SOLENOID VALVE DETAIL

NOT TO SCALE

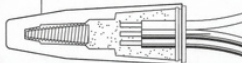
DIRECT BURY/30V SINGLE CONDUCTOR TYPE FOR ALL UNDERGROUND CONNECTIONS LAIRN IRRIGATION SYSTEMS

NOTE: FOR DIRECT BURIAL SPLICES WITH WIRE SIZES No. 14, No. 12 AND No. 10, MAXIMUM OF THREE WIRES PER CONNECTOR.

STRIP WIRES APPROXIMATELY 1/2\"/>

STEP 1

1. ALIGN CONDUCTORS (PRE-TWISTING UNNECESSARY)
2. PLACE STRIPPED WIRES WITH ENDS EVEN
3. TWIST CONNECTOR ONTO WIRES PUSHING FIRMLY. (DO NOT OVER TORQUE)

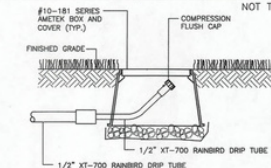


STEP 2

IMPORTANT: TURN OFF POWER BEFORE INSTALLING OR REMOVING CONNECTOR.

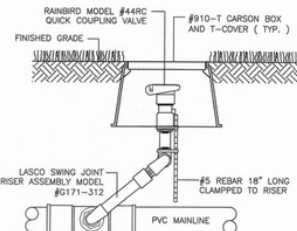
WIRE CONNECTION DETAIL

NOT TO SCALE



DRIP FLUSHING END CAP DETAIL

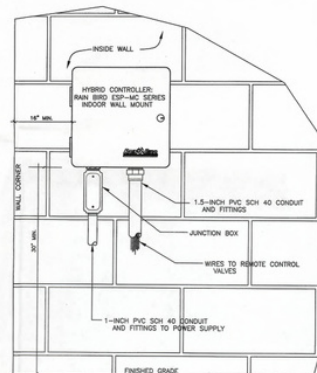
NOT TO SCALE



STAKED QCV DETAIL

NOT TO SCALE

MAIN SIZE/MODEL #
2-1/2\"/>



ESP-32MC OUTDOOR CONTROLLER

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Landscape Architecture
1001 N. UNIVERSITY AVENUE, SUITE 100
DENVER, CO 80202
TEL: 303.733.1111
FAX: 303.733.1112
WWW.LANDPATTERNS.COM

FINAL LANDSCAPE & IRRIGATION DEVELOPMENT PLAN
for
BETH-EL MENNONITE CHURCH
4625 RANCH DRIVE
COLORADO SPRINGS, CO

Sheet Title:
Irrigation Details

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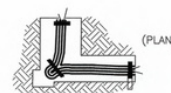
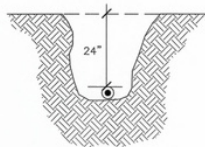
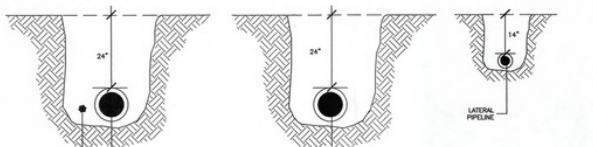
MAINLINE, LATERAL LINE, AND WIRING

MAINLINE ONLY

LATERAL ONLY (TURF ZONES ONLY)

110/120 VOLT & COMMUNICATION WIRE

CONTROL WIRING



BAND 20° LOOP OF WIRES IN ALL CHANGES OF DIRECTION GREATER THAN 30 DEGREES. LEAVE LOOPS AFTER CONNECTING ARE MADE

HEAD SCHEDULE

SYM	QTY	MFG	MODEL	NOZZLE	PSI	GPM	COVERAGE
A	4	RAINBIRD	1824 SAN PPS	MPS 50	30	0.10	7' INCL.
B	8	RAINBIRD	1824 SAN PPS	MPS 50	30	0.20	7' INCL.
C	1	RAINBIRD	1824 SAN PPS	U12 (7)	30	2.60	12-15' END.
D	9	RAINBIRD	1824 SAN PPS	U12 (6)	30	1.30	12-15' END.
E	7	RAINBIRD	1824 SAN PPS	U12 (5)	30	0.65	12-15' END.
F	1	RAINBIRD	1824 SAN PPS	U12 (7)	30	0.87	12-15' END.
G	2	RAINBIRD	1824 SAN PPS	U15 (7)	30	3.70	12-15' END.
H	50	RAINBIRD	1824 SAN PPS	U15 (6)	30	1.85	12-15' END.
I	7	RAINBIRD	1824 SAN PPS	U15 (5)	30	0.82	12-15' END.
J	1	RAINBIRD	1824 SAN PPS	U15 (7)	30	1.23	12-15' END.
K	2	RAINBIRD	3000 SERIES	0.75 (7)	55	1.70	18' INCL.
L	11	RAINBIRD	3000 SERIES	0.75 (6)	55	0.43-0.85	18' INCL.
M	11	RAINBIRD	3000 SERIES	1.5 (7)	65	3.72	28-34' INCL.
N	25	RAINBIRD	3000 SERIES	1.5 (6)	65	1.86	28-34' INCL.
O	1	RAINBIRD	14-LINE DRIP TUBE	12-28-24	30	0.9 GPM/2'	DRIP
P	55	RAINBIRD	4" GAL. TREEDING	12-28-24	30	0.9 GPM/2'	DRIP

EQUIPMENT SCHEDULE

SYM	QTY	MFG	MODEL	SIZE	DESCRIPTION
1	1	FEDCO	825 1A	1.5"	MP INCLUSION PREVENTOR
2	1	RAINBIRD	ESP-22-HC	22 STATION	AUTOMATIC CONTROLLER
3	7	RAINBIRD	KCZ-1000CM	1"	AUTOMATIC DRIP VALVE
4	15	RAINBIRD	180-PEB	1.5"	AUTOMATIC VALVE
5	10	RAINBIRD	700 OF	1"	DRIP FLUSH GY
6	3	RAINBIRD	44 LFC	1"	BACK COUNTER VALVE
7	1	MIR-CLK	502	N/A	RAIN SHUTOFF SENSOR

VALVE SCHEDULE-CONTROLLER 'A'

VALVE #	EST. GPM	SIZE	MANUFACTURER	HYDROZONE ZONE TYPE
A1	15.9 GPM	1"	15	1" LANDSCAPE DRIPLINE, SHRUB BEES
A2	15.9 GPM	1.5"	30	1" POP-UP ROTOR HEADS, SOODED FESCUE TURF
A3	22.3 GPM	1.5"	10	1" POP-UP SPRAY HEADS, SOODED FESCUE TURF
A4	16.1 GPM	1.5"	30	1" POP-UP ROTOR HEADS, SOODED FESCUE TURF
A5	16.8 GPM	1.5"	10	1" POP-UP SPRAY HEADS, SOODED FESCUE TURF
A6	13.5 GPM	1"	15	1" LANDSCAPE DRIPLINE, SHRUB BEES
A7	14.0 GPM	1"	15	1" LANDSCAPE DRIPLINE, SHRUB BEES
A8	25.8 GPM	1.5"	10	1" POP-UP SPRAY HEADS, SOODED FESCUE TURF
A9	25.9 GPM	1.5"	10	1" POP-UP SPRAY HEADS, SOODED FESCUE TURF
A10	14.4 GPM	1.5"	30	1" POP-UP ROTOR HEADS, SOODED FESCUE TURF
A11	13.8 GPM	1"	15	1" LANDSCAPE DRIPLINE, SHRUB BEES
A12	15.0 GPM	1.5"	30	1" POP-UP ROTOR HEADS, SOODED FESCUE TURF
A13	12.2 GPM	1"	15	1" LANDSCAPE DRIPLINE, SHRUB BEES
A14	14.7 GPM	1"	15	1" LANDSCAPE DRIPLINE, SHRUB BEES
A15	18.8 GPM	1.5"	12	1" POP-UP SPRAY HEADS, SOODED FESCUE TURF
A16	15.7 GPM	1"	15	1" LANDSCAPE DRIPLINE, SHRUB BEES
A17	12.8 GPM	1.5"	40	1" POP-UP ROTOR HEADS, SOODED FESCUE TURF
A18	8.5 GPM	1"	15	1" LANDSCAPE DRIPLINE, SHRUB BEES
A19	22.3 GPM	1.5"	10	1" POP-UP SPRAY HEADS, SOODED FESCUE TURF
A20	25.2 GPM	1.5"	15	1" POP-UP ROTOR HEADS, NATIVE SEED AREAS
A21	22.3 GPM	1.5"	15	1" POP-UP ROTOR HEADS, NATIVE SEED AREAS
A22	19.8 GPM	1.5"	15	1" POP-UP ROTOR HEADS, NATIVE SEED AREAS
A23-A24	SPARE			

TOTAL OPERATION TIME PER CYCLE X CONTROLLER 4 HOURS PLUS DRIP AT P.O.C.

BASED ON APPLICATION RATES OF 1.5" PER WEEK (4 DAYS PER WEEK CYCLE) FOR BLUEGRASS SOO AREAS

BASED ON APPLICATION RATES OF 1.5" PER WEEK (4 DAYS PER WEEK CYCLE) FOR FESCUE SOO AREAS

BASED ON APPLICATION RATES OF 0.75" PER WEEK (4 DAYS PER WEEK CYCLE) FOR NATIVE SEED AREAS

BASED ON APPLICATION RATES OF 1.5" PER WEEK (4 DAYS PER WEEK CYCLE) FOR SHRUB AREAS

RECOMMEND SPLITTING APPLICATION TIMES INTO TWO REPEAT CYCLES

DESIGN BASED ON MAXIMUM OPERATION OF TWO STATIONS PER MAXIMUM FLOW OF 4.4 GPM @ 80 PSI STATIC PRESSURE

WORST CASE PSI LOSS

PIPE/DEVICE	DIS.	EST. LOSS	EST. PSI LOSS	TOTALS
1.5" GDSO MAINLINE	1172 LF	0.48/100'	5.40 PSI	-5.40 PSI
BESH BACKFLOW PREVENTOR			12.0 PSI	-12.0 PSI
PEB 150 VALVE			1.80 PSI	-1.80 PSI
LATERAL	VARIABLE	5% OF STATIC	4.00 PSI	-4.00 PSI
SMRG ZONE			3.00 PSI	-3.00 PSI
1.5" ACTUATOR			1.40 PSI	-1.40 PSI
ELEVATION GAIN/LOSS	0		0.00 PSI/FT GAIN	0.00 PSI
SOO4 SERIES 1/2" L.S. NOZZLE			45.00 PSI	-45.00 PSI
TOTAL CALCULATED STATIC PSI REQUIRED				72.60 PSI
STATIC PSI AVAILABLE AT P.O.C.				80.00 PSI
RESIDUAL PSI AVAILABLE				7.40 PSI

CPC PUD 02-052
CPC DP 02-053

GENERAL NOTES:

A- PLANS ARE DIAGRAMATIC; PRECISE PLACEMENT OF EQUIPMENT MAY NOT BE POSSIBLE AS INDICATED. CONSULT PROJECT MANAGER PRIOR TO MAKING RANDOM FIELD CHANGES WHICH MAY ALTER THE INTENT OF THE DESIGN.

B- SCHEDULE OF WORK TO BE PROVIDED AND INSTALLED BY IRRIGATION SYSTEM CONTRACTOR TO INCLUDE BUT MAY NOT BE LIMITED TO:

- 1- PROVISION AND INSTALLATION OF ALL EQUIPMENT REQUIRED PER THE DRAWINGS, EQUIPMENT SCHEDULE, AND SPECIFICATIONS, INCLUDING ALL MISCELLANEOUS INCIDENTAL EQUIPMENT, WHETHER INDICATED OR NOT BUT WHICH MAY BE REQUIRED TO RESULT IN A COMPLETE AND OPERABLE IRRIGATION SYSTEM (FROM P.O.C.).
- 2- COORDINATION AND INSTALLATION OF ALL SUBSURFACE SLEEVES AS INDICATED ON THE DRAWINGS.
- 3- FLAGGING OF ALL SPRINKLER HEAD AND CONTROL VALVE LOCATIONS, AND MARKING OF ALL MAINLINE AND LATERAL PIPELINE LOCATIONS FOR INSPECTION AND APPROVAL BY PROJECT MANAGER PRIOR TO TRENCHING AND EXCAVATING.
- 4- TESTING FOR STATIC WATER PRESSURE AND POINT OF CONNECTION AND DETERMINING ADEQUACY FOR USE PRIOR TO COMMENCING WORK DOWNSTREAM OF POINT OF CONNECTION. INADEQUATE PRESSURE SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER AND DEFICIENCIES SHALL BE CORRECTED PRIOR TO COMMENCEMENT OF WORK DOWNSTREAM OF POINT OF CONNECTION. FAILURE TO TEST AND VERIFY ADEQUACY OF STATIC PRESSURE AND DETERMINING FEASIBILITY OF OPERATION AS INTENDED BY DESIGN PRIOR TO COMMENCEMENT OF WORK DOWNSTREAM OF BACKFLOW PREVENTORS SHALL NOT PRECLUDE IRRIGATION INSTALLER'S RESPONSIBILITY TO PROVIDE OPTIMUM COVERAGE OF LANDSCAPED AREAS AS INTENDED BY DESIGN.
- 5- PROVISION AND INSTALLATION OF ALL CONTROLLERS, CABINETS, PEDESTAL MOUNTINGS, CONCRETE PADS, AND ANY CONTROLLER-RELATED EQUIPMENT AS MAY BE REQUIRED PER THE DRAWINGS AND SPECIFICATIONS. INSTALLER IS RESPONSIBLE FOR MAKING ALL LOW VOLTAGE WIRING CONNECTIONS FROM REMOTE CONTROL VALVES TO ALL CONTROLLERS AND FOR CORRECT SEQUENCING OF ALL VALVE OPERATION AS INDICATED IN THE CONTROL VALVE ZONE SCHEDULE.
- 6- ACTIVATION OF ALL IRRIGATION SYSTEMS AND ADJUSTMENT OF ALL FLOW CONTROLS AND NOZZLES FOR OPTIMUM PERFORMANCE AND COVERAGE AS INTENDED BY DESIGN WITH MANUAL OVERSPEED ONTO PAVEMENTS. INSTALLER IS RESPONSIBLE FOR ALL ADJUSTMENT TO NOZZLES, RISERS, FLOW CONTROLS, ETC. PRIOR TO REQUEST FOR INSPECTION BY THE PROJECT MANAGER. ALL ZONES SHALL HAVE BEEN PROGRAMMED AND PERMITTED TO OPERATE AUTOMATICALLY VIA CONTROLLERS THROUGH COMPLETE CYCLES FOR A PERIOD OF NOT LESS THAN 24 HOURS PRIOR TO INSPECTION FOR OPERATION BY PROJECT MANAGER.
- 7- DEMONSTRATION OF OPERATION OF SYSTEM IN AN AUTOMATIC MODE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. THE PROJECT MANAGER SHALL BE GIVEN NOT LESS THAN 24 HOURS NOTICE THAT AN INSPECTION FOR OPERATION IS REQUESTED. REQUESTS FOR INSPECTIONS SHALL BE ON A "PER LAP/CONTROLLED" BASIS. ACCEPTANCE FOR SUBSTANTIAL COMPLETION MAY BE GIVEN BY THE OWNER ON A "PER LAP/CONTROLLED" BASIS. HOWEVER, FINAL ACCEPTANCE FOR WORK AND COMPLETION OF WARRANTIES SHALL BE GIVEN UPON COMPLETION, INSPECTION, AND ACCEPTANCE OF ALL WORK REQUIRED PER THE DRAWINGS, SPECIFICATIONS, AND CONTRACT DOCUMENTS.
- 8- COMPLETE CLEANUP OF ALL DIRT, UNUSED MATERIALS, AND OTHER DEBRIS SHALL BE PERFORMED BY THE INSTALLER PRIOR TO OWNER'S INSPECTION FOR FINAL ACCEPTANCE. PAVEMENTS WITHIN THE WORK AREAS SHALL BE THOROUGHLY SWEEPED AND POWER WASHED WITH WATER AS MAY BE NECESSARY TO REMOVE DIRT AND DEBRIS. ALL ROAD PATCHES SHALL BE COMPLETE, FLATS REMOVED, AND FINE TUNING ADJUSTMENTS MADE PRIOR TO INSPECTION FOR FINAL ACCEPTANCE OR PAYMENT.
- 9- AS-BUILT, REPRODUCIBLE RECORD DRAWINGS, WRITTEN WARRANTIES, SEASONAL MAINTENANCE INSTRUCTIONS, AND SPARE EQUIPMENT SHALL BE PROVIDED BY THE INSTALLER AT THE TIME OF FINAL ACCEPTANCE. SUBMITTALS SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS. FAILURE TO MAKE ALL PROJECT CLOSEOUT SUBMITTALS AT THE REQUIRED TIME IN THE RECORD DRAWINGS MAY RESULT IN DELAY OF FINAL ACCEPTANCE AND RELEASE OF APPLICABLE RETAINAGES BY THE OWNER.

C- IRRIGATION INSTALLER SHALL BE RESPONSIBLE FOR PROVIDING A 30 DAY ON-SITE MAINTENANCE PROGRAM, TO INCLUDE BUT NOT NECESSARILY LIMITED TO FINE TUNING OF NOZZLES, FLOW CONTROLS, AND OTHER EQUIPMENT INSTALLED UNDER THE CONTRACT TO MAINTAIN OPTIMUM OPERATION OF ALL SYSTEMS AT ALL TIMES. CONTROLLER PROGRAMMING SHALL BE COORDINATED WITH THE OWNER TO ESTABLISH AND PROMOTE GROWTH OF PLANTINGS MADE UNDER THE CONTRACT, AND TO SUSTAIN OPTIMUM PLANT APPEARANCE AT ALL TIMES AS SEASONALLY APPROPRIATE.

D- IRRIGATION INSTALLER SHALL BE RESPONSIBLE FOR PERFORMANCE OF SEASONAL MAINTENANCE TO INCLUDE BUT NOT NECESSARILY LIMITED TO DEACTIVATION AND ACTIVATION OF ALL IRRIGATION SYSTEMS TO PREVENT FREEZE DAMAGE TO ALL EQUIPMENT. INSTALLER SHALL BE RESPONSIBLE FOR COORDINATION AND PERFORMANCE OF ALL SEASONAL MAINTENANCE PROCEDURES REQUIRED TO DEACTIVATE SYSTEMS ON OR BY OCTOBER 1ST OF THE FIRST YEAR FOLLOWING DATE OF FINAL ACCEPTANCE, AND ACTIVATION OF IRRIGATION SYSTEMS SHALL BE PERFORMED ON OR BY APRIL 1ST OF THE YEAR FOLLOWING DEACTIVATION. IN THE EVENT THE INSPECTION FOR FINAL ACCEPTANCE OCCURS AFTER OCTOBER 1ST, REQUIRED SEASONAL MAINTENANCE SCHEDULE SHALL BE EXTENDED TO OCCUR THE YEAR FOLLOWING FINAL ACCEPTANCE OF ALL WORK.

E- A 1 YEAR CONDITIONAL WARRANTY SHALL BE EXTENDED BY THE INSTALLER TO COVER ALL MATERIAL AND WORKMANSHIP PROVIDED UNDER THE CONTRACT, DURING THE 1 YEAR WARRANTY PERIOD. ANY INSTALLATION WHICH BECOMES INOPERABLE, OR WHICH DOES NOT OPERATE AS ORIGINALLY INTENDED (I.E. CONDITION AS OBSERVED AND ACCEPTED AT INSPECTION FOR FINAL ACCEPTANCE), THE INSTALLER SHALL REPAIR AND/OR REPLACE ANY WORK WHICH CAN BE ATTRIBUTED TO DEFICIENT OPERATION AT NO EXTRA COST TO THE OWNER. DEFICIENCIES MAY INCLUDE BUT ARE NOT LIMITED TO LEAKS, SETTLEMENT OF TRENCHES GREATER THAN ONE INCH, FREEZE DAMAGE, AND EQUIPMENT DEFECTS, VANDALISM, IMPROPER USE AND MAINTENANCE OF SYSTEMS BY OWNER RESULTING IN DEFICIENCIES SHALL NOT BE THE RESPONSIBILITY OF THE INSTALLER, AND REPAIR/REPLACEMENT MAY BE MADE AT EXTRA COST TO THE OWNER AS AGREED.

F- ALL INSTALLATIONS SHALL BE MADE IN STRICT ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, DOCUMENTS, AND STATE & LOCAL CODES AND ORDINANCES HAVING JURISDICTION OVER THE WORK. IN THE EVENT OF CONFLICT BETWEEN REQUIREMENTS, THE MOST STRINGENT REQUIREMENT WILL PREVAIL IN ANY CASE.

G- QUANTITIES WHICH MAY BE STATED OR IMPLIED IN SCHEDULES, GENERAL NOTES, ETC., ARE PROVIDED FOR REFERENCE ONLY. IN THE EVENT OF CONFLICT, THAT QUANTITY WHICH IS REPRESENTED GRAPHICALLY PER THE DRAWINGS SHALL PREVAIL IN ANY CASE.

H- ALL IRRIGATION WORK SHALL BE COORDINATED WITH LANDSCAPE AND SITEWORK. DO NOT WILLFULLY MAKE ANY INSTALLATION WHICH MAY INTERFERE WITH IRRIGATION SYSTEM OPERATION AND COVERAGE AS INTENDED BY DESIGN. NOTIFY THE PROJECT MANAGER OF SUCH CONFLICTS AND RESOLVE CONFLICTS PRIOR TO PROCEEDING WITH WORK.

I- ALTERNATE EQUIPMENT FROM THAT INDICATED ON THE DRAWINGS AND SPECIFICATIONS, WHICH WHEN INSTALLED WILL RESULT IN EQUAL PERFORMANCE, IMPROVED PERFORMANCE, AND/OR CONSIDERABLE COST SAVINGS TO THE OWNER WITH EQUAL OR IMPROVED PERFORMANCE TO THAT INDICATED MAY BE CONSIDERED BY OWNER. ALL PROPOSED ALTERNATE EQUIPMENT MUST BE PROPOSED TO AND APPROVED BY THE OWNER PRIOR TO SUBMITTAL OF BID PROPOSAL. ONLY THOSE ALTERNATE MANUFACTURERS' AND EQUIPMENT LISTED IN THE SPECIFICATIONS WILL BE CONSIDERED. PROVISION/INSTALLATION OF ALTERNATE EQUIPMENT WITHOUT PRIOR APPROVAL BY THE OWNER MAY RESULT IN DELAY AND/OR REJECTION OF FINAL ACCEPTANCE OF ALL WORK.

J- UPON ENTERING INTO AN AGREEMENT TO PROVIDE LABOR AND MATERIAL TO COMPLETE ALL WORK REQUIRED UNDER THIS CONTRACT, THE INSTALLER HEREBY GUARANTEES TO THE OWNER THAT WORK WILL BE EXECUTED TO THE BEST OF THE INSTALLER'S ABILITY. THE INSTALLER SHALL NOT ACCEPT ANY TENDER OR PAYMENT OR BE PAID HEREIN AT ANY TIME DURING OR AFTER COMPLETION OF AGREEMENT TO PROVIDE WORK UNDER THIS SECTION. THE INSTALLER SHALL MAKE CERTAIN CERTAINMENTS PERTAINING TO THIS AGREEMENT AS DESCRIBED IN THE GENERAL CONDITIONS OF THE AGREEMENT BETWEEN THE OWNER AND CONTRACTOR.



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Land Patterns, Inc.
1801 S. 10th Street, Suite 400
Boulder, Colorado 80502
Phone: 303.440.1100
Fax: 303.440.1101
Email: info@landpatterns.com

FINAL LANDSCAPE & IRRIGATION DEVELOPMENT PLAN
for
BETH-EL MENNONITE CHURCH
4625 RANCH DRIVE
COLORADO SPRINGS, CO

Sheet Title:
Irrigation Details

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15 of 15 Sheets