

APPENDICES

**APPENDIX A -
SURVEYS RETURNED FROM MUNICIPALITIES**

CARLISLE BOROUGH

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|-----------------------------|-----|-------------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | | X | | | |
| Erosion & Sedimentation from Streambanks | | X | | | |
| Nutrients | X | | | | |
| Other: | | | | | |
| Flooding | X | | | | |
| Development-Related Stormwater Increases | X | | | | |
| Inadequate Groundwater Recharge | | | X | | |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|--|------------------------------------|
| 1. | 40" CMP Walnut Bottom Road street flooding - College Street to West Street | 2. |
| 2. | 48" CMP West street flooding between Ridge Street and Willow Street | 1. |
| 3. | Inlet surcharging - S. Hanover Street between Willow Street and Baltimore Street | |
| 4. | Inlet surcharging - Clay & Hanover Sts. intersection | |
| 5. | Inlet surcharging - Pitt Street & Lincoln Street intersection | |
| 6. | Inlet surcharging and Letort Spring Run overflow - street and basement flooding | |
| 7. | Street flooding - Meadow Blvd. and Terrace Avenue - Valley Meadows Park | |
| | | |
| | | |

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|--------------------------|-----|----------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmyards and construction sites) | ✓ | | | | |
| Erosion & Sedimentation from Streambanks | | ✓ | | | |
| Nutrients | | | ✓ | | |
| Other: <i>Septic Tank Discharge</i> | | | | ✓ | |
| Flooding | ✓ | | | | |
| Development-Related Stormwater increases | | ✓ | | | |
| Inadequate Groundwater Recharge | | | ✓ | | |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|---|---------------------------------|
| 1. | <i>Pine Hill Road / Hazard Lane</i> | |
| 2 | <i>Sheet Flow at Wertzville Road</i> | |
| 3. | <i>Streambank Erosion Twp wide</i> | |
| 4. | <i>Summerfield Inadequate Stormwater Systems</i> | |
| 5. | <i>West Fairview Inadequate Stormwater System</i> | |
| 6. | <i>Joyce Road & Fairway Drive</i> | <i>36" CMP</i> |
| 7. | <i>Magara RD & Aerie Road</i> | <i>36" CMP</i> |
| | | |
| | | |

LOWER ALLEN TWP.

1 of 2

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|-----------------------------|-----|-------------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | | | ✓ | | |
| Erosion & Sedimentation from Streambanks | | ✓ | | | |
| Nutrients | | | | | ✓ |
| Other: | | | | | |
| Flooding | ✓ | | | | |
| Development-Related Stormwater Increases | | | ✓ | | |
| Inadequate Groundwater Recharge | | | | ✓ | |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|--|------------------------------------|
| 1 | 12'x8' CMP ARCH, CONSTRUCTED AT IMPROPER ELEVATION | |
| 2 | UNDEFINED CHANNEL | |
| 3 | 12" AND 15" CROSSPIPES, NO ADEQUATE DISCHARGE POINTS | |
| 4 | VARIOUS SIZE CMPs, NO ADEQUATE DISCHARGE POINTS | |
| 5 | 21" AND 24" CMP | |
| 6 | ROADSIDE SWALES - INADEQUATE SIZE | |
| 7 | ROADSIDE SWALES - INADEQUATE SIZE | |
| 8 | NEGATIVE SLOPE AT DOWNSTREAM MANHOLE | |
| 9 | 18" CMP / OPEN SWALE | |

MIDDLESEX TOWNSHIP - COMPLETED BY ZONING OFFICER, MARK CARPENTER

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|--------------------------|-----|----------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | | X | | | |
| Erosion & Sedimentation from Streambanks | | | X | | |
| Nutrients | | | X | | |
| Other: | | | | | |
| Flooding | X | | | | |
| Development-Related Stormwater Increases | | X | | | |
| Inadequate Groundwater Recharge | | | X | | |
| Other (please identify): Runoff from paved lots in trucking facilities. | X | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|---|---------------------------------|
| 1 | APPROX 36" CMP under Norfolk Southern RR Row obstructed from farming activity causes backup of stormwater along Old Stone House Road | 2 |
| 2 | Roadside swales along Old Stone House Road undersized for back water from obstructed culvert #1 | 1 |
| 3 | during major storm events, runoff flows from S. Middleton Twp. across TRIMBLE ROAD and floods undersized roadside swales along Hickorytown Road, Chestnut Drive, Shellback Court and Redwood Hills Circle and undersized swales on private property before draining into Crystal Lake and eventually Hogestown Run. | |
| 4 | Conodoginet creek at Weils Bridge - streambank erosion and stream channel obstruction by trees and siltation during major storm events from upstream development increasing flow volumes | |

N. MIDDLETON TWP.

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|--------------------------|-----|----------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | X | | | | |
| Erosion & Sedimentation from Streambanks | X | | | | |
| Nutrients | X | | | | |
| Other: | | | | | |
| Flooding | X | | | | |
| Development-Related Stormwater Increases | X | | | | |
| Inadequate Groundwater Recharge | X | | | | |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|---|---------------------------------|
| 1 | OLD GAP RD - 24" CMP | 1 |
| 2 | Hoy RD - 15" RCP | 2 |
| 3 | NORTH MIDDLETON RD - 24" RCP | 3 |
| 4 | EASY RD - 30" SMOOTH BORE PLASTIC 24" " " " 18" " " " | 4 |
| 5 | WILLOW GRAVE RD - 36" RCP | 5 |
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Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

SHIREMANSTOWN BOROUGH

*mapped
Added to survey*

| Description | Municipal Prioritization | | | | |
|---|--------------------------|--------------|--------------------------|-----|----------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | No | Farmland | | | X |
| Erosion & Sedimentation from Streambanks | No | Watercourses | | | X |
| Nutrients | | | | | X |
| Other: | | | | | |
| Flooding | | | X | | |
| Development-Related Stormwater Increases | X | | | | |
| Inadequate Groundwater Recharge | | | | | X |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|----------------------------------|---------------------------------|
| | No Obstructions | |
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New problem Areas to Add:

✓ Comp Hill

between 15th + 16th Street

low area near State St. - poor drainage

This is only one new problem area

DICKINSON TWP.

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|--------------------------|-----|----------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | ✓ | | | | |
| Erosion & Sedimentation from Streambanks | ✓ | | | | |
| Nutrients | ✓ | | | | |
| Other: | | | | | |
| Flooding | ✓ | | | | |
| Development-Related Stormwater Increases | ✓ | | | | |
| Inadequate Groundwater Recharge | | | | ✓ | |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|--|------------------------------------|
| | Green Mountain Rd | |
| 1 | 48" CCP Danks + road edges eroding around pipe. Twp plans to install concrete headwall to better direct water and clean out the gutter system | |
| 2 | 30" x 19" RCP Arch Culvert / Area floods every heavy rain. Twp plans to try and work w/ Penn Dot to solve problem. Pine Rd SR-3000 Segment 160 OFFSET 8+73 | |
| 3 | 48" 20' 50" Bridge/Road is right at creek level and it floods during heavy rains. Twp plans to clear debris from bridge inlet. Stout Rd | |
| 4 | Low lying ground area, is barely above creek level. Twp plans to do minor grading / talk w/ Farmer to adjust plowing practices. Montsera Rd | |
| 5 | Low lying topography causes area to flood during storms + heavy rains. Grade swells and add new swells to convey. Eak's Mill Rd water to culverts | |
| 6 | Low lying topography causes Rd to flood. N. Dickinson School Rd + W Yellow Breeches | |
| 7 | Floods during major events from Laurel Lake Dam. Dam is dredging the lake to help w/ problem. Pine Grove Rd | |
| 8 | Camp ground floods during heavy rains due to low lying topography. At creek camp ground | |
| 9 | Floods during heavy rains - Twp plans to clean debris with permission of land owner. Toland / Tagg Run | |

LOWER MIFFLIN

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|-----------------------------|-----|-------------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | x | | | | |
| Erosion & Sedimentation from Streambanks | x | | | | |
| Nutrients | x | | | | |
| Other: | | | | | |
| Flooding | x | | | | |
| Development-Related Stormwater Increases | x | | | | |
| Inadequate Groundwater Recharge | | | x | | |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|--|------------------------------------|
| 1 | Donald Heatherman Property 740 Shed Rd Newville | |
| 2 | Richard Beatty Farm 101 Meadows Rd Newville | |
| | Roadmaster Eugene Henry 716-5308 | |
| | Can give details. | |
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NORTH NEWTON TWP.

W
mapped
added
to
survey

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|--------------------------|-----|----------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | | | | | X |
| Erosion & Sedimentation from Streambanks | | | | X | |
| Nutrients | | | | X | |
| Other: | | | | | |
| Flooding | | X | | | |
| Development-Related Stormwater Increases | | | | | X |
| Inadequate Groundwater Recharge | | | | | X |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|--|---------------------------------|
| 1 | Mountain Road Bridge over Conodoguinet Creek | 1 |
| 4 | Bridge on Fish Hatchery Road | 4 |
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W

PENN TOWNSHIP

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|-----------------------------|-----|-------------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | | X | | | |
| Erosion & Sedimentation from Streambanks | | X | | | |
| Nutrients | | | X | | |
| Other: | | | | | |
| Flooding | | | | | |
| Development-Related Stormwater Increases | X | | X | | |
| Inadequate Groundwater Recharge | X | | | | |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|---|------------------------------------|
| A | Bridge on Rte. 233 | |
| B | Bridge on Pine Rd. | |
| C | 48" Pipe on Feach orchard Rd. | |
| D | Bridge on Walnut Bottom Rd. @ Pine Rd. | |
| E | 15" Pipe on Leeds Rd. | |
| F | 15" Pipe on South Farm Rd. | |
| G | 48" Pipe on Southside Drive @ Seavers Rd. | |
| | | |
| | | |

W. Pennsboro twp.

Please prioritize the stormwater-related issues listed below for your municipality. If the issues are particularly relevant in a subarea of your municipality, please indicate those areas on a copy of your municipal base map and return the map with your survey.

| Description | Municipal Prioritization | | | | |
|---|--------------------------|-----|-----------------------------|-----|-------------------------------|
| | Very Important (5) | (4) | Moderately Important (3) | (2) | Relatively Unimportant (1) |
| Water Quality: | | | | | |
| Erosion & Sedimentation on Disturbed Lands (farmlands and construction sites) | | | ✓ | | |
| Erosion & Sedimentation from Streambanks | | | | ✓ | |
| Nutrients | | | | ✓ | |
| Other: | | | | | |
| Flooding | | ✓ | | | |
| Development-Related Stormwater Increases | | | ✓ | | |
| Inadequate Groundwater Recharge | | | | ✓ | |
| Other (please identify): | | | | | |

Please identify the obstructions (i.e. bridges, culverts, dams, etc.) in your municipality that relate to localized stormwater management problem areas. We also ask that you assign an identification number to each obstruction and mark its location on a copy of your municipal base map. Further information on the problem areas associated with these obstructions or other features or conditions is requested on the following page.

| ID # | Description (i.e. 36" CMP, etc.) | Associated Problem ID# (if any) |
|------|---|------------------------------------|
| 1 | 12" CMP | |
| 2 | 4' x 4' Box culvert | |
| 3 | No structure - water runs along roadway | |
| 4 | 33" x 48" Elliptical RCP | |
| 5 | 4' x 9' Concrete arch downstream / 2 x 36" RCP upstream | |
| 6 | 21" RCP / 21" CMP | |
| 7 | 4' x 5' Box culvert | |
| 8 | Bridge over Mount Rock Spring Creek | |
| 9 | 7' x 9' arch | |

**APPENDIX B -
PROBLEM AREAS IDENTIFIED BY MUNICIPALITIES**

**Cumberland County Stormwater Management Plan
Problem Areas - Eastern Municipalities**

| ID# | Description | Possible Causes | | | | |
|--------------------------------|---|--------------------------------|--------------|------------------------|------------------------------|--|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | Other |
| Camp Hill | | | | | | |
| CH-1 | Between 15th & 16th Streets - low area near State Street | | | | | |
| Carlisle Borough | | | | | | |
| CA-1 | Walnut Bottom Rd. flooding. College St to West St. 40" CMP. | x | | | x | When Letort Spring Run rises during heavy runoff, it chokes off the drainage system causing street flooding. |
| CA-2 | West St. flooding between Ridge St & Willow St. 48" CMP. | x | | | x | When Letort Spring Run rises during heavy runoff, it chokes off the drainage system causing street flooding. |
| CA-3 | S. Hanover St. between Willow St. & Baltimore St. | x | | | x | Inlet surcharging. |
| CA-4 | Clay St. & Hanover St. Intersection | x | | | x | Inlet surcharging. |
| CA-5 | Pitt St. & Lincoln St. intersection | x | | | x | Inlet surcharging. |
| CA-6 | Inlet surcharging and Letort Spring Run overflow. | x | | | x | Sometimes Letort Spring Run overflows and floods roadways and basements. |
| CA-7 | Meadow Blvd & Terrace Ave., Valley Meadows Park | x | | | | No conveyance systems - surface drainage only. Street flooding. |
| East Pennsboro Township | | | | | | |
| EP-1 | Pine Hill Rd/ Hazzard Ln | x | | x | x | |
| EP-2 | 909-911 Wertzville Rd | | | x | x | No curbing along Wertzville Rd, or stormwater collection and conveyance systems. |
| EP-3 | Township-wide streambank erosion | x | | x | x | |
| EP-4 | Summerdale | | | | x | Inadequate stormwater collection systems. |
| EP-5 | West Fairview | | | | x | Inadequate stormwater collection systems. |
| EP-6 | Joyce Rd & Fairway Dr | x | | x | x | |
| EP-7 | Magaro Rd & Acri Rd | x | | | x | |
| Hampden Township | | | | | | |
| HA-1 | Trindle Rd & Norway St | x | | | | No conveyance system. |
| HA-2 | 5270 Trindle Rd | | | | x | No conveyance system. |
| HA-3 | 5257 Trindle Rd | x | | | | No conveyance system. |
| HA-4 | 5100 Trindle Rd | x | | | | No conveyance system. |

**Cumberland County Stormwater Management Plan
Problem Areas - Eastern Municipalities**

| ID# | Description | Possible Causes | | | | Other |
|------------------------------|--|--------------------------------|--------------|------------------------|------------------------------|--|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | |
| Lower Allen Township | | | | | | |
| LA-1 | Gettysburg Rd & Audubon Rd | | x | | x | |
| LA-2 | Cedar Run at Bortek Industries | x | x | | x | |
| LA-3 | Windsor Park Shopping Center at Simpson Ferry Rd | x | x | | x | |
| LA-4 | Rossmoyne Manor | | | | x | |
| LA-5 | W. Maple Ave/ Pinewood Dr/ Rupp Ave | | | | x | |
| LA-6 | Thompson Lane | | | | x | |
| LA-7 | Slate Hill Rd | x | | | x | |
| LA-8 | Oneida Rd | | x | | x | |
| LA-9 | Highland Circle/ Carlisle Rd | x | | | x | |
| LA-10 | Boxwood Lane | | | | x | |
| LA-11 | Hummel Avenue | | | x | x | |
| Mechanicsburg Borough | | | | | | |
| ME-1 | York Circle - drainage easement | | x | | | |
| ME-2 | Memorial Park | | | | x | System discharges to sump that overflows into park. |
| ME-3 | Broad Street | x | | | | Major volume of water from Williams Grove Rd and the Senior High School. |
| ME-4 | Elmwood – drainage | x | | | | System was designed in the 1970s to empty into sump (sinkhole). |
| ME-5 | Darla Road | | | | | Sinkhole developed in underground system low point - high volume of water drains here. |
| ME-6 | Lake "Simpson" | x | | | | |
| ME-7 | Apple Drive & Cocklin Drive | x | | | | |
| ME-8 | Market & Main Sts./Norwood & Main Sts. | x | | | | |
| ME-9 | Minimizing stormwater inputs in northern portions of the Borough | x | | | | |
| Middlesex Township | | | | | | |
| MI-1 | Old Stonehouse Rd & RR ROW | | x | x | ? | |
| MI-2 | Old Stonehouse Rd – swales | | | | x | |
| MI-3 | Hickorytown Rd – swales undersized | | | | x | |
| MI-4 | Conodoguinet Creek & Wolfs Bridge - erosion | x | x | x | | |

**Cumberland County Stormwater Management Plan
Problem Areas - Eastern Municipalities**

| ID# | Description | Possible Causes | | | | |
|---------------------------------|--|--------------------------------|--------------|------------------------|------------------------------|---|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | Other |
| Monroe Township | | | | | | |
| MO-1 | Heisey Rd (Baish Rd to Park Place) | | | | x | Need a larger culvert under Park Place or add another pipe beside it. |
| MO-2 | Leidigh Drive & Criswell Drive | x | | | | Area is very flat - difficult to attain proper drainage. Runoff from South Mountain floods this area. |
| MO-3 | York Rd (Rt 74) S of Baish Rd | x | | | | Water runs across road due to poor side ditches. |
| New Cumberland | | | | | | |
| NC-1 | Flooding streets and roadways. | | | | | River backing up Yellow Breeches Creek. |
| North Middleton Township | | | | | | |
| NM-1 | Old Gap Road - 24" CMP | | | | x | |
| NM-2 | Hoy Road - 15" RCP | | | | x | Associated with adjacent pond outlet. |
| NM-3 | North Middleton Road - 24" RCP | | | | x | |
| NM-4 | Easy Road - 18", 24", 30" smooth bore plastic. | | | | x | Adjacent topography. |
| NM-5 | Willow Grove Road - 36" RCP | | | | x | |
| Shiremanstown Borough | | | | | | |
| SH-1 | Courtland Alley; Market St/ Irvin St. | | | | | No conveyance system. Water floods private property. |
| SH-2 | Market St & Green St. | | | | | Dead end conveyance system. Adds to street flow of SH-1. |
| Silver Spring Township | | | | | | |
| SS-1 | 486 N. Locust Point Road. 24" HDPE | | | | x | Inadequate downstream facilities. Outfall lower than adjacent land. |
| SS-2 | Kost Road South of Rt. 11 | x | | | x | Vertical dip in road with inadequate profile for properly sized pipe. |
| SS-3 | N. Locust Point Rd & Kost Rd | | | | x | Vertical dip in road with inadequate profile for properly sized pipe. (No pipe.) |
| SS-4 | 90 Green Ridge Road. 60" RCP | x | | | | Previous upslope construction may contribute to inundation. |
| SS-5 | Millers Gap Road. | x | | | x | Subject of township stormwater improvement project. |
| SS-6 | Sample Bridge Rd & Sunset Rd. 15" CMP | | | | x | Recent correction due to high water event. |

**Cumberland County Stormwater Management Plan
Problem Areas - Eastern Municipalities**

| ID# | Description | Possible Causes | | | | |
|---------------------------------|--|--------------------------------|--------------|------------------------|------------------------------|---|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | Other |
| SS-7 | 384 Sample Bridge Road. 12", 24" CMP. 3'x8' RC culvert | | x | | x | CMPs are obstructed with debris; may be misaligned. |
| SS-8 | Willow Mill Park Rd @ Conodoguinet | | | | | Road is too low and within floodplain. |
| SS-9 | 21 Willow Mill Park Road. 24" CMP | | x | x | x | Pipe undersized. No room for additional facilities. |
| SS-10 | 196 Willow Mill Park Road. 30" RCP, 36" CMP | | x | x | x | Heavily silted. Poor grading on adjacent areas. |
| SS-11 | 80 Beechcliff Road. 15" HDPE | x | | | | Unnamed trib to Conodoguinet - subject to flash flooding. Inadequate collection system adjacent to roadway. |
| SS-12 | 58 to 20 Biddle Road | x | | | x | Road is too low and within floodplain. Road profile too low for adequate pipe size. |
| SS-13 | Woods Drive & Hogestown Road | x | | x | | PENNDOT storm drains. Improvements planned within 5 years. |
| SS-14 | 126 State Road. 24" RCP | | x | x | x | PENNDOT cross culvert. Partially silted. Outfall lower than adjacent land. |
| SS-15 | 284 Sample Bridge Road. 30" RCP, 36" CMP. | | | | x | At crossing under Sample Bridge Rd. 30" heavily silted; 36" needs repairs. Poor grading on adjacent areas. |
| SS-16 | 29 & 31 King Drive. 15" CMP | | | x | x | Dip in road profile. Poor physical condition; minimal backwater area. |
| SS-17 | 456 Rich Valley Road | | | x | | Partial siltation at outfall. Adjacent grading problems and skewed alignment. |
| SS-18 | 20 Sherwood Drive | x | | | x | Unnamed trib to Conodoguinet - subject to flash flooding. |
| SS-19 | 1300 Block of Old Willow Mill Rd | | | | x | System inadequate. Drainage issues complex and difficult to resolve. |
| South Middleton Township | | | | | | |
| SM-1 | Alexander Spring Rd & Walnut Bottom Rd | | | | | Land area is very flat; no place to positively outfall the stormwater. |
| SM-2 | Stonehedge Shopping Center | | | | | Center drains to a basin with no positive outflow. Natural drainage blocked due to development. |
| SM-3 | Trindle Rd | x | | | | Water flows to a yard which is the lowest point. |
| SM-4 | Petersburg Rd | x | | | | Water ponds at residence due to altered drainage pattern after development. |
| SM-5 | Limestone Road | x | | | | Water flows to a yard which is the lowest point. |
| SM-6 | S. Spring Garden St | x | | | | Wetland area at headwaters of Letort Spring Run. |

**Cumberland County Stormwater Management Plan
Problem Areas - Eastern Municipalities**

| ID# | Description | Possible Causes | | | | Other |
|--------------------|--|--------------------------------|--------------|------------------------|------------------------------|---|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | |
| SM-7 | Netherby Development | x | | | | Need to address on-site pre-development conditions and off-site bypass drainage in karst terrain. |
| SM-8 | Sandbank Rd | x | | | | No culvert or defined drainageway. |
| SM-9 | Westgate Development | x | | | | Stormwater facility does not infiltrate. Was retrofitted. |
| SM-10 | Pine Rd/Sycamore Dr | | | | | Homes built in floodplain. |
| SM-11 | Southview Estates | | | | x | Need an outlet from infiltration facility that is lower in elevation than the road. |
| SM-12 | Yellow Breeches @ Holly Pike | | x | | | Debris. |
| SM-13 | Mountain Creek @ Ladnor Ln | | | | | Flooding during major events. |
| SM-14 | Mountain Creek @ Ladnor Ln | | | | | Flooding during major events. |
| SM-15 | Petersburg Rd | | x | | | Roadway located in a floodplain. |
| SM-16 | Cumberland Hills | | x | | | Flooding during major events. |
| SM-17 | George Hing | | x | | | Flooding during major events. |
| SM-18 | Downstream of Misty Meadows | x | | | | Swale cannot handle volume of water associated with the development. |
| SM-19 | Earl St | | x | | | No conveyance system. |
| SM-20 | Meadowood Development | x | | | | Downstream conveyance cannot handle post-development discharge. |
| Upper Allen | | | | | | |
| UA-1 | Gettysburg Rd - stream flooding | | x | | x | |
| UA-2 | Allendale Rd - stream/street flooding | | x | | x | |
| UA-3 | Eric Ave - sinkholes | | | | | SW detention in sinkhole prone area. |
| UA-4 | E. Winding Hill Rd - stream/street/ private property flooding | | | | x | |
| UA-5 | S. Market St & Turnpike - stream, parking lot/ private property flooding | | | | x | |
| UA-6 | Elmwood Ave/ Shepardstown Rd - private property flooding | | | | x | Lack of outlet for SW retention/ Infiltration. |
| UA-7 | Webercroft develop. - stream/street/ private property flooding | | x | | x | |
| UA-8 | S. York St. (800 block) - street/ private property flooding | x | | | x | |
| UA-9 | S. York St. at Cedar Run - street/ private property flooding | | x | | x | |

**Cumberland County Stormwater Management Plan
Problem Areas - Eastern Municipalities**

| ID# | Description | Possible Causes | | | | |
|-----------------------------|--|--------------------------------|--------------|------------------------|------------------------------|---|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | Other |
| UA-10 | Miller Ave/ S. Broad St. | | | | | Lack of outlet for SW infiltration basin. |
| UA-11 | Diehl Rd - Street/ intersection/ private property flooding | | | | x | Lack of storm drain facilities. |
| UA-12 | Bumble Bee Hollow Rd - street/ private property flooding | x | x | | | |
| UA-13 | Bonny Lane -street/ private property flooding | | | x | | |
| UA-14 | Skipped in survey. | | | | | |
| UA-15 | McCormick Rd - stream/ street/ private property flooding | | x | x | | |
| UA-16 | McCormick Rd - stream/ street/ private property flooding | x | x | | | |
| UA-17 | Hertzler Rd - stream/ street flooding | | | | x | |
| UA-18 | Hertzler Rd - stream/ street flooding | | x | | | |
| UA-19 | Mill Rd - street/ private property flooding | | x | | | |
| UA-20 | Grantham Rd - street/ private property flooding | | x | | | |
| UA-21 | E. Lisburn Rd. - street/ private property flooding | | x | | x | |
| Wormleysburg Borough | | | | | | |
| WO-1 | Sewer storm drain pipes | | | | x | |
| WO-2 | Erosion on and along road | x | | | | |
| WO-3 | Front Street – flooding | | | | | |
| WO-4 | Mummert Rd – drains onto property | x | | | | |

**Cumberland County Stormwater Management Plan
Problem Areas - Western Municipalities**

| ID# | Description | Possible Causes | | | | Other |
|---------------------------------|--|--------------------------------|--------------|------------------------|------------------------------|---|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | |
| Cooke Township | | | | | | |
| CT-1 | State Parks – areas of flooding | | | | | Pine Grove Furnace - Limited areas in park flood during extreme weather events. Not related to new development. Erosion in Michaux State Forest related to logging activities. Not related to new development. |
| CT-2 | Lake Warren – dam overflow | | | x | | Water crests top of dam during extreme events. |
| Dickinson Township | | | | | | |
| DT-1 | Green Mountain Road - 48" CCP | x | x | | | Erosion around pipe. |
| DT-2 | Pine Road - 30"x19" RCP culvert | x | | | x | Floods during heavy rain. |
| DT-3 | Stuart Road | | | | | Bridge road is at creek level and it floods during heavy rain. |
| DT-4 | Montsera Road | x | | | | Low lying ground near creek level. |
| DT-5 | Enks Mill Road | | | | | Low topography. Flooding during heavy rains. |
| DT-6 | N. Dickinson School Road | | | | | Low topography. Flooding during heavy rains. |
| DT-7 | Pine Grove Road | | | | | Flooding during heavy rain. |
| DT-8 | Campground | | | | | Flooding during heavy rain. |
| Hopewell Township | | | | | | |
| HO-1 | PA 641 bridge over Conodoguinet | | | | | |
| Lower Frankford Township | | | | | | |
| LF-1 | Meadow Brook Hill | | x | | | Culvert to be replaced during summer 2008. |
| Lower Mifflin Township | | | | | | |
| LM-1 | 740 Shed Rd, Newville. Creek water flooding. | | | | | |
| LM-2 | 101 Meadows Rd., soil erosion | | | | | |
| Newville Borough | | | | | | |
| NE-1 | Sharp St – open culvert floods | x | | | | |
| NE-2 | Fairfield St to W Main St - swales | x | x | | x | Many cross pipes that are privately owned and undersized. |
| NE-3 | Cove Ave to Big Spring Creek - culvert | x | x | | x | Age and condition of structure are a concern. |
| NE-4 | Stone Arch Culvert - Big Spring Creek | | x | x | | |
| North Newton Township | | | | | | |
| NN-1 | Mountain Rd bridge over Conodoguinet Creek | | x | x | | Bridge needs to be replaced. Debris obstructs channel. |
| NN-2 | Big Spring Creek & Conodoguinet | | x | | | Downed trees in creek. |
| NN-3 | West Fish Hatchery Rd - flooding | | | | | Downstream flow channel is flat and narrow. |

**Cumberland County Stormwater Management Plan
Problem Areas - Western Municipalities**

| ID# | Description | Possible Causes | | | | |
|--------------------------------|---|--------------------------------|--------------|------------------------|------------------------------|--|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | Other |
| NN-4 | Fish Hatchery Rd - bridge deterioration | | | x | | Deteriorating abutment walls. |
| NN-5 | Red Shed Rd - flooding | x | | | | No culvert to allow water to cross under roadway. |
| NN-6 | Running Pump Rd - flooding | | | | | Flat topography. |
| NN-7 | Koser Rd to Springfield Rd - flooding | | | | | Farm debris. Flat topography. |
| NN-8 | Fry Rd - flooding | x | | | | No drainage controls in upstream watershed. Low area floods. |
| NN-9 | Ridge Rd - flooding | | | x | | Road ditches not maintained. |
| NN-10 | Bullshead Rd at culvert crossing | | | | | May need additional culvert. Flat topography. |
| NN-11 | Bullshead Rd at bridge crossing | | | | | Flat topography and low bridge elevation. |
| NN-12 | Fish Hatchery Rd at culvert crossing | | | | | May need additional culvert. |
| Penn Township | | | | | | |
| PT-1 | Bridge on Rt. 233 | | x | | x | |
| PT-2 | Bridge on Pine Road | | x | | x | |
| PT-3 | Peach Orchard Rd – 48” pipe | x | | | x | |
| PT-4 | Bridge on Walnut Bottom Rd & Pine Road | | x | | x | |
| PT-5 | Leeds Rd – 15” pipe | | | | x | |
| PT-6 | South Farm Rd – 15” pipe | | | | x | |
| PT-7 | Southside Dr & Seavers Rd – 48” pipe | | x | | x | |
| Shippensburg Borough | | | | | | |
| SH-1 | Fayette St at Dykeman Rd at RR | | | | | |
| SH-2 | Fogelsonger Rd near Rt. 696 | | | | | |
| SH-3 | Britton Rd. at Burd Run | | | | | |
| SH-4 | Bard Rd. at bridge over Middle Spring | | | | | |
| SH-5 | Route 174 & Queen St | x | | | x | |
| Southampton Township | | | | | | |
| SO-1 | Airport Road – Bridge | | | | x | |
| South Newton Township | | | | | | |
| | No problems identified | | | | | |
| West Pennsboro Township | | | | | | |
| WP-1 | 12” CMP | | | | x | |
| WP-2 | 4’ x 4’ box culvert | | x | | | |
| WP-3 | No structure – water runs on road | x | | | | |
| WP-4 | 33” x 48” elliptical RCP | | x | | x | |
| WP-5 | concrete arch downstream | | x | | x | |
| WP-6 | 21” CMP | | | | x | |
| WP-7 | 4’ x 5’ box culvert | | | | x | |

**Cumberland County Stormwater Management Plan
Problem Areas - Western Municipalities**

| ID# | Description | Possible Causes | | | | Other |
|-------|--------------------------------|--------------------------------|--------------|------------------------|------------------------------|---|
| | | Inadequately Controlled Runoff | Obstructions | Inadequate Maintenance | Undersized Conveyance System | |
| WP-8 | Mount Rock Spring Creek bridge | | | | x | |
| WP-9 | 7' x 9' arch | | | | x | Stream makes a sharp turn at arch. |
| WP-10 | Conodoguinet Creek floods | | | | | Flat areas and flood plain along creek. |

**APPENDIX C -
SIGNIFICANT OBSTRUCTIONS**

BRIDGES

Bridge Information

Structure ID CC 1010

Spans

| | | Piers | |
|---------------------------------|-------|--------------------|---------|
| Geometry | Other | Number | 0 |
| Width | 208 | Shape | |
| Height | 16 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 156 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 156 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Cultivated area | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID CC 1020

Spans

| | | Piers | |
|---------------------------------|-----|--------------------|-----------------------------------|
| Geometry | Box | Number | 2 |
| Width | 236 | Shape | Elongated with semi-circular ends |
| Height | 22 | Width at bottom | 5 |
| Height where arch begins | | Width | 5 |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 190 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 190 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-----------------------------------|
| | | Bridge Information | |
| | | Structure ID CC 1030 | |
| Spans | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 210 | Shape | Elongated with semi-circular ends |
| Height | 18 | Width at bottom | 4 |
| Height where arch begins | | Width | 5 |
| | | Height at bottom | 14.5 |
| | | Length | 36 |
| Distance from low chord to deck | 5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 142 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 10 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 142 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 9 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|--------------------------------------|
| | | Bridge Information | |
| | | Structure ID CC 1040 | |
| Spans | | Piers | |
| Geometry | Box | Number | 4 |
| Width | 335 | Shape | Triangular nose with 60 degree angle |
| Height | 10 | Width at bottom | |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | |
| | | Length | 43 |
| Distance from low chord to deck | 4 | Shape of abutments | Sloping |
| Distance from deck to parapet | 4 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 210 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 210 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID CC 1125 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 46 | Shape | |
| Height | 13 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 50 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 25 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Cultivated area | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 27 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID CC 1150 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 18 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---------------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID CC 1310 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 14 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 25 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 0 | Type of parapet | Guide Rail |
| Angle of skew of flow | 40 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 25 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 23 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--|----------------|---|
| | | Bridge Information | | | |
| | | Structure ID CC 1710 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | 0 | | |
| Width | 12 | Shape | | | |
| Height | 8 | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 23 | | |
| Distance from low chord to deck | 1.5 | Shape of abutments | None | | |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail | | |
| Angle of skew of flow | 45 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 21 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID CC 1905 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 15 | Shape | |
| Height | 6.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 25 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|------------------------------|----------------|---------------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 23 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID CC 1935 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 12 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 24.5 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---------------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-----------------------------------|
| | | Bridge Information | |
| | | Structure ID CC 3110 | |
| Spans | | Piers | |
| Geometry | Box | Number | 2 |
| Width | | Shape | Elongated with semi-circular ends |
| Height | | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 38 |
| Distance from low chord to deck | | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 200 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 185 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|--------------------------------------|
| | | Bridge Information | |
| | | Structure ID cc 5010 | |
| Spans | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 185 | Shape | Triangular nose with 60 degree angle |
| Height | 13 | Width at bottom | 6 |
| Height where arch begins | | Width | 5 |
| | | Height at bottom | 1 |
| | | Length | 27 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 125 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 115 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID CC 6450 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 169 | Shape | |
| Height | 16 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 160 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 160 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|---|
| | | Bridge Information | |
| | | Structure ID CC 8010 | |
| Spans | | Piers | |
| Geometry | Box | Number | 2 |
| Width | 157 | Shape | Square nose |
| Height | 11 | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | 6 ht from bottom of water to top flare. |
| | | Length | 32 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 150 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6.5 | | | | |

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 150 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6.5 | | | | |

Bridge Information

Structure ID CC 9610

Spans

| Spans | | Piers | |
|---------------------------------|------|--------------------|-------------|
| Geometry | Arch | Number | 1 |
| Width | 25 | Shape | Square nose |
| Height | 9 | Width at bottom | 5.5 |
| Height where arch begins | 6.5 | Width | 2.5 |
| | | Height at bottom | 2.5 |
| | | Length | 22 |
| Distance from low chord to deck | 3.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | . | Type of parapet | Guide Rail |
| Angle of skew of flow | 40 | | |

Stream Channel Characteristics**Upstream**

| Upstream | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 10 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 9 | | | | |

Downstream

| Downstream | | Floodplain | | N Value | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 7 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 9 | | | | |

Bridge Information

Structure ID CC 9910

Spans

| Spans | | Piers | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 10 | Shape | |
| Height | 8.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 27.5 |
| Distance from low chord to deck | 0.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | | | |

Stream Channel Characteristics**Upstream**

| Upstream | | Floodplain | | N Value | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 9 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| Downstream | | Floodplain | | N Value | |
|-------------------|----|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 12 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |

Bridge Information

Structure ID CC 10089

Spans

| | | | |
|---------------------------------|-----|--------------------|-----------------------------------|
| Geometry | Box | Number | 3 |
| Width | 340 | Shape | Elongated with semi-circular ends |
| Height | 25+ | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 0.5 | Shape of abutments | None |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 230 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 9 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 230 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID CC 10005

Spans

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 3 |
| Width | 282 | Shape | Circular |
| Height | 12 | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 242 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 242 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID CC 10010

Spans

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 0 |
| Width | 26 | Shape | |
| Height | 6.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 3.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID CC 10090

Spans

| | | | |
|---------------------------------|------|--------------------|----------|
| Geometry | Box | Number | 0 |
| Width | 27 | Shape | |
| Height | 10.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 25 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 9 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 20 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 11 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID CC 10120 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 17 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 16 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID CC 10122 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 17 | Shape | |
| Height | 3.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---------------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, short grass | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID CC 10128

Spans

| | | Piers | |
|---------------------------------|------|--------------------|-------|
| Geometry | Box | Number | 0 |
| Width | 12.5 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 9 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 12 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID CC 10210

Spans

| | | Piers | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 3 |
| Width | 325 | Shape | Circular |
| Height | 25+ | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 105 |
| Distance from low chord to deck | 4.5 | Shape of abutments | None |
| Distance from deck to parapet | 4 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 275 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 275 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6.5 | | | | |

Bridge Information

Structure ID CC 10245

Spans

| Spans | | Piers | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 0 |
| Width | 12 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 38 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 2.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| Upstream | | Floodplain | | N Value | |
|-------------------|----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 11 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Downstream

| Downstream | | Floodplain | | N Value | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 7 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID CC 11600

Spans

| Spans | | Piers | |
|---------------------------------|------|--------------------|-----------------------------------|
| Geometry | Box | Number | 4 |
| Width | 300 | Shape | Elongated with semi-circular ends |
| Height | 13.5 | Width at bottom | 6 |
| Height where arch begins | | Width | 3.5 |
| | | Height at bottom | 0.5 |
| | | Length | 25.5 |
| Distance from low chord to deck | 4.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| Upstream | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 285 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Downstream

| Downstream | | Floodplain | | N Value | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 285 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID CC 11485

Spans

| | | | |
|---------------------------------|------|--------------------|-----------------------------------|
| Geometry | Box | Number | 3 |
| Width | 307 | Shape | Elongated with semi-circular ends |
| Height | 15.5 | Width at bottom | 4 |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | |
| | | Length | 45 |
| Distance from low chord to deck | 4 | Shape of abutments | None |
| Distance from deck to parapet | 2.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 15 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 216 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 216 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID CC 12000

Spans

| | | | |
|---------------------------------|-----|--------------------|--------------------------------------|
| Geometry | Box | Number | 3 |
| Width | 256 | Shape | Triangular nose with 30 degree angle |
| Height | 15 | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 43 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 4 | Type of parapet | Guide Rail |
| Angle of skew of flow | 15 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 207 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 207 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID CC 12005

Spans

| | | | |
|---------------------------------|------|--------------------|-----------------------------------|
| Geometry | Box | Number | 7 |
| Width | 600 | Shape | Elongated with semi-circular ends |
| Height | 25++ | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 44 |
| Distance from low chord to deck | 4 | Shape of abutments | None |
| Distance from deck to parapet | 4 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 240 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 240 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID CC 12101

Spans

| | | | |
|---------------------------------|------|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 23.5 | Shape | |
| Height | 8.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 37 |
| Distance from low chord to deck | 3 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|------|-------------------|----------------------|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 13.5 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3.1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID CC 12110 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 17 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 36 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 15 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|------|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID CC 12136 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 12.5 | Shape | |
| Height | 3.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 50 |
| Distance from low chord to deck | 2 | Shape of abutments | |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8.5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID DR 5101

Spans

| | | Piers | |
|---------------------------------|------|--------------------|-------|
| Geometry | Box | Number | 0 |
| Width | 16.5 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|-------------------|----------------|---------------------------------------|
| Bottom width (ft) | 10 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, short grass | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|--|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

Bridge Information

Structure ID DR 5110

Spans

| | | Piers | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 25 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 20 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 21 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID DR 5120 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 30 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 26 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 21 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|--------------------------------------|
| | | Bridge Information | |
| | | Structure ID DR 5125 | |
| Spans | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 45 | Shape | Triangular nose with 60 degree angle |
| Height | 6 | Width at bottom | 4 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | 1 |
| | | Length | 42 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3.5 | Type of parapet | Other |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 16 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID DR 5310 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 21 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|------------------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, short grass | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--|----------------|---|
| | | Bridge Information | | | |
| | | Structure ID DR 5420 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | 1 | | |
| Width | 44 | Shape | Triangular nose with 60 degree angle | | |
| Height | 5.5 | Width at bottom | 5 | | |
| Height where arch begins | | Width | 3 | | |
| | | Height at bottom | 2 | | |
| | | Length | 28 | | |
| Distance from low chord to deck | 1 | Shape of abutments | None | | |
| Distance from deck to parapet | 3 | Type of parapet | Other | | |
| Angle of skew of flow | 20 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 39 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID DR 5430 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 9.5 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| | | Floodplain | | N Value | |
| Upstream | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bottom width (ft) | 11 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Horiz. | 3 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| | | Floodplain | | N Value | |
| Downstream | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bottom width (ft) | 7 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 3 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--------------------------------|----------------|--|
| | | Bridge Information | | | |
| | | Structure ID DR 5510 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | 0 | | |
| Width | 17 | Shape | | | |
| Height | 5 | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 50 | | |
| Distance from low chord to deck | 1 | Shape of abutments | None | | |
| Distance from deck to parapet | 3.5 | Type of parapet | Guide Rail | | |
| Angle of skew of flow | 35 | | | | |
| | | Stream Channel Characteristics | | | |
| | | Floodplain | | N Value | |
| Upstream | | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bottom width (ft) | 8 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Horiz. | 4 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| | | Floodplain | | N Value | |
| Downstream | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bottom width (ft) | 10 | Right | Paved or impervious | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 2 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID FR 6210

Spans

| | | Piers | |
|---------------------------------|-------|--------------------|-------|
| Geometry | Other | Number | 0 |
| Width | 16.5 | Shape | |
| Height | 6.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 11 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 16 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|------|-------------------|--|----------------|---|
| Bottom width (ft) | 15.5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID FR 6420

Spans

| | | Piers | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 13 | Shape | |
| Height | 4.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|------|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 12.5 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 5.5 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID FR 6620 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 14 | Shape | |
| Height | 5.3 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 28 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|----|---------------------------------------|------------------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | | | |
|---------------------------------|------|---------------------------------------|--------------------------------|----------------|---|
| | | Bridge Information | | | |
| | | Structure ID FR 6725 | | | |
| Spans | | Piers | | | |
| Geometry | Arch | Number | 0 | | |
| Width | 8.5 | Shape | | | |
| Height | 6.3 | Width at bottom | | | |
| Height where arch begins | 3.3 | Width | | | |
| | | Height at bottom | | | |
| | | Length | 22.5 | | |
| Distance from low chord to deck | 0.5 | Shape of abutments | None | | |
| Distance from deck to parapet | | Type of parapet | Guide Rail | | |
| Angle of skew of flow | 10 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID FR 7210 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 11 | Shape | |
| Height | 9 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|-------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 6 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, short grass | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6.5 | | | | |

| | | | | | |
|-------------------|---|-------------------|------------------------------|----------------|--|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 6 | Left | Scattered brush, heavy weeds | Left | |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID HZR 11765 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 16 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 17.5 |
| Distance from low chord to deck | 0.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|---|---------------------------------------|--------------------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID LR 8105 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 19 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 16 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|------|---------------------------------------|--------------------------------|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 26.5 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 26.5 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID LR 8110 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 43 | Shape | |
| Height | 8.5 | Width at bottom | |
| Height where arch begins | 4 | Width | |
| | | Height at bottom | |
| | | Length | 73 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 35 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 34 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID LR 8320

Spans

| Spans | | Piers | |
|---------------------------------|------|--------------------|-------------|
| Geometry | Arch | Number | 1 |
| Width | 12.5 | Shape | Square nose |
| Height | 5.5 | Width at bottom | 2.5 |
| Height where arch begins | 5.5 | Width | 2.5 |
| | | Height at bottom | 5.5 |
| | | Length | 13 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| Upstream | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 35 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Downstream

| Downstream | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 28 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Bridge Information

Structure ID LR 8330

Spans

| Spans | | Piers | |
|---------------------------------|------|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 26.5 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 22 |
| Distance from low chord to deck | 2 | Shape of abutments | Other |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| Upstream | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 30 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Downstream

| Downstream | | Floodplain | | N Value | |
|-------------------|-----|-------------------|-----------------------------------|----------------|--|
| Bottom width (ft) | 34 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Dense willows or with undergrowth | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.0 | | | | |

Bridge Information

Structure ID LR 8340

Spans

| | | | |
|---------------------------------|-------|--------------------|------------|
| Geometry | Other | Number | 0 |
| Width | 37 | Shape | |
| Height | 8.7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 28 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 28 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 28 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2.5 | | | | |

Bridge Information

Structure ID LR 8405

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 14 | Shape | |
| Height | 4.3 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 2.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|-------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 24 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|----------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 29 | Left | Medium to dense brush with scattered trees | Left | Lined or built-up channels |
| Bank Geom. Horiz. | 1 | Right | Medium to dense brush with scattered trees | Right | Concrete |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----|
| | | Bridge Information | |
| | | Structure ID LR 8455 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 23 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 52 |
| Distance from low chord to deck | 2 | Shape of abutments | |
| Distance from deck to parapet | | Type of parapet | |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--------------------------------|----------------|------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 23 | Left | Lawn, with buildings | Left | Lined or built-up channels |
| Bank Geom. Horiz. | 1 | Right | Lawn, with buildings | Right | Gravel Bottom with Sides of: |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 23 | Left | Lawn, with trees and/or fences | Left | Lined or built-up channels |
| Bank Geom. Horiz. | 1 | Right | Lawn, with trees and/or fences | Right | Gravel Bottom with Sides of: |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----|
| | | Bridge Information | |
| | | Structure ID LR 8469 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 13 | Shape | |
| Height | 2.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 17 |
| Distance from low chord to deck | 1.5 | Shape of abutments | |
| Distance from deck to parapet | | Type of parapet | |
| Angle of skew of flow | 40 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 21 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 21 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID LR 8470 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 21 | Shape | |
| Height | 3.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 4 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 33 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 32 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 33 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 32 | | | | |

| | | | | | |
|---------------------------------|-------|---------------------------------------|--|----------------|--|
| | | Bridge Information | | | |
| | | Structure ID LR 8475 | | | |
| Spans | | Piers | | | |
| Geometry | Other | Number | 0 | | |
| Width | 17 | Shape | | | |
| Height | 3.5 | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 12 | | |
| Distance from low chord to deck | 4 | Shape of abutments | | | |
| Distance from deck to parapet | n/a | Type of parapet | | | |
| Angle of skew of flow | 0 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 24 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 24 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID LR 8480 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 20 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 66 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|------|-------------------|--|----------------|---------------------------------------|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12.5 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Impervious with structures, commercial | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------------|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID LR 8485 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 8 | Shape | |
| Height | 2 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | 0 |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|------|-------------------|-----------------------|----------------|---------------------------------------|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18.5 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | | | |
|-------------------|------|-------------------|--------------------------------|----------------|---------------------------------------|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18.5 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID LR 8510 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 9 | Shape | |
| Height | 3 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Sloping |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Lawn, short grass | Left | Excavated or dredged channels |
| Bank Geom. Horiz. | 4 | Right | Lawn, short grass | Right | Earth - Straight and Uniform |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--------------------------------|----------------|---|
| | | Bridge Information | | | |
| | | Structure ID SR 7110 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | 0 | | |
| Width | 11 | Shape | | | |
| Height | 7.5 | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 39 | | |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical | | |
| Distance from deck to parapet | | Type of parapet | Guide Rail | | |
| Angle of skew of flow | 0 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Pasture or field with no brush | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID SR 7120 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 15 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 1 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 17 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID SR 7320 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 16 | Shape | |
| Height | 8 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 27 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|---|-------------------|-------------------|----------------|---|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2 | | | | |

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|---|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2 | | | | |

Bridge Information

Structure ID SR 7420

Spans

| | | Piers | |
|---------------------------------|------|--------------------|------------|
| Geometry | Arch | Number | 0 |
| Width | 6 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 9 | Shape of abutments | Vertical |
| Distance from deck to parapet | .5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|----------------------|----------------|--|
| Bottom width (ft) | 10 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|---|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 8 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID SR 7430

Spans

| | | Piers | |
|---------------------------------|-------|--------------------|------------|
| Geometry | Other | Number | 0 |
| Width | 8 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 24 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 16 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 11 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID SR 7435 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 8 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4? | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4? | | | | |

| | | | |
|---------------------------------|------|---------------------------|-------|
| | | Bridge Information | |
| | | Structure ID STR 6110 | |
| Spans | | Piers | |
| Geometry | Arch | Number | 0 |
| Width | 41 | Shape | |
| Height | 13 | Width at bottom | |
| Height where arch begins | 8 | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 4 | Shape of abutments | None |
| Distance from deck to parapet | 1 | Type of parapet | Other |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 22 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 44 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID STR 6130 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 76 | Shape | |
| Height | 12 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 37 |
| Distance from low chord to deck | 5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 4 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 22 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 23 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--------------------------------|----------------|--|
| | | Bridge Information | | | |
| | | Structure ID STR 6710 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | 0 | | |
| Width | 30 | Shape | | | |
| Height | 11 | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 23 | | |
| Distance from low chord to deck | 1.5 | Shape of abutments | None | | |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier | | |
| Angle of skew of flow | 20 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 32 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 28 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID STR 6910

Spans

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 0 |
| Width | 20 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Bridge Information

Structure ID STR 6925

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | | Shape | |
| Height | | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | |
| Distance from low chord to deck | | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|------------------------------|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |

Bridge Information
Structure ID STR 6925A

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 28 | Shape | |
| Height | 11 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 49 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information
Structure ID TR 3805

Spans

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 0 |
| Width | 18 | Shape | |
| Height | 2.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 0.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------|
| | | Bridge Information | |
| | | Structure ID TR 3810 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 12 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 23 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 0.5 | Type of parapet | None |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID TR 3825 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 18 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 25 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 21 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 16 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID wr 5110 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 24 | Shape | |
| Height | 8.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 54 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 40 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 22 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 27 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID wr 5310 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 21 | Shape | |
| Height | 10 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 13 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Other |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID wr 5610 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 18 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | 0 | Width | |
| | | Height at bottom | |
| | | Length | 27 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--------------------------------|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--|----------------|---|
| | | Bridge Information | | | |
| | | Structure ID YB 1510 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | 0 | | |
| Width | 19 | Shape | | | |
| Height | 4 | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 14 | | |
| Distance from low chord to deck | 1.5 | Shape of abutments | | | |
| Distance from deck to parapet | 0.5 | Type of parapet | Other | | |
| Angle of skew of flow | 10 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Bridge Information

Structure ID YB 1520

Spans

| | | | |
|---------------------------------|------|--------------------|--------------------------------------|
| Geometry | Arch | Number | 1 |
| Width | 92 | Shape | Triangular nose with 30 degree angle |
| Height | 6 | Width at bottom | 6 |
| Height where arch begins | 4 | Width | 4 |
| | | Height at bottom | 2 |
| | | Length | 16 |
| Distance from low chord to deck | 2 | Shape of abutments | |
| Distance from deck to parapet | 1 | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 72 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 72 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 2.5 | | | | |

Bridge Information

Structure ID YB 1855

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 1 |
| Width | 47 | Shape | Circular |
| Height | 5 | Width at bottom | 5 |
| Height where arch begins | | Width | 5 |
| | | Height at bottom | |
| | | Length | 15 |
| Distance from low chord to deck | 2 | Shape of abutments | |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 42 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 42 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Bridge Information

Structure ID YB 1865

Spans

| | | | |
|---------------------------------|-----|--------------------|-----------------------------------|
| Geometry | Box | Number | 2 |
| Width | 132 | Shape | Elongated with semi-circular ends |
| Height | 8 | Width at bottom | 7 |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | 0.5 |
| | | Length | 45 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 35 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 60 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID YB 3010

Spans

| | | | |
|---------------------------------|-----|--------------------|---------|
| Geometry | Box | Number | 0 |
| Width | 120 | Shape | |
| Height | 10 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 2 | Shape of abutments | Sloping |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 80 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 80 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID YB 3011

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 20 | Shape | |
| Height | 3 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 22 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 1 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|-------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Medium to dense brush | Right | No water. |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|-------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 27 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | No water. |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Bridge Information

Structure ID YB 3025

Spans

| | | | |
|---------------------------------|-----|--------------------|--------------------------------------|
| Geometry | Box | Number | 1 |
| Width | 101 | Shape | Triangular nose with 60 degree angle |
| Height | 8 | Width at bottom | 7 |
| Height where arch begins | | Width | 7 |
| | | Height at bottom | 0 |
| | | Length | 18 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | 2.5 | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 82 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 71 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID YB 3030 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 13 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 23 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2 | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--------------------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|----------|---------------------------|-----------------------------------|
| | | Bridge Information | |
| | | Structure ID YB 3035 | |
| Spans | | Piers | |
| Geometry | Box | Number | 2 |
| Width | 205 | Shape | Elongated with semi-circular ends |
| Height | 11 | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | 0 |
| | | Length | 36 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10/45/45 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 195 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 185 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID YB 3040

Spans

| | | | |
|---------------------------------|-------|--------------------|-------|
| Geometry | Other | Number | 0 |
| Width | 85 | Shape | |
| Height | 7.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 14 |
| Distance from low chord to deck | 0.5 | Shape of abutments | None |
| Distance from deck to parapet | 0 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 70 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 70 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID YB 4050

Spans

| | | | |
|---------------------------------|------|--------------------|--------------------------------------|
| Geometry | Arch | Number | 2 |
| Width | 128 | Shape | Triangular nose with 60 degree angle |
| Height | 12 | Width at bottom | 10 |
| Height where arch begins | 2 | Width | 8 |
| | | Height at bottom | 2 |
| | | Length | 21 |
| Distance from low chord to deck | 6 | Shape of abutments | |
| Distance from deck to parapet | 2 | Type of parapet | Other |
| Angle of skew of flow | 60 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 100 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 100 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID YB 4051 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 19 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 14 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0.5 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|---------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 20 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 24 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|------|---------------------------|-------|
| | | Bridge Information | |
| | | Structure ID YB 4052 | |
| Spans | | Piers | |
| Geometry | Arch | Number | 0 |
| Width | 24 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | 2 | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 0.5 | Shape of abutments | 0 |
| Distance from deck to parapet | 2.5 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Impervious with structures, commercial | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 26 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID YB 4110

Spans

| Spans | | Piers | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 8 | Shape | |
| Height | 8 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 25 |
| Distance from low chord to deck | 1 | Shape of abutments | |
| Distance from deck to parapet | 2 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| Upstream | | Floodplain | | N Value | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Left | | Left | |
| Bank Geom. Horiz. | | Right | | Right | |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

Downstream

| Downstream | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 22 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Impervious with structures, commercial | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID YB 4111

Spans

| Spans | | Piers | |
|---------------------------------|-----|--------------------|-------|
| Geometry | Box | Number | 0 |
| Width | 19 | Shape | |
| Height | 3 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 45 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 0.5 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| Upstream | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 34 | Left | Impervious with structures, commercial | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Impervious with structures, commercial | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Downstream

| Downstream | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 24 | Left | Impervious with structures, commercial | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Impervious with structures, commercial | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 4112 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 16 | Shape | |
| Height | 3 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 50 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | 2 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|-------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Impervious with structures, commercial | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, short grass | Right | No flow. |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Impervious with structures, commercial | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Impervious with structures, commercial | Right | Standing water. |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 1.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-------|
| | | Bridge Information | |
| | | Structure ID YB 4130 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 16 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 26 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 3.5 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|----------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, with buildings | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID YB 4136

Spans

| | | | |
|---------------------------------|-----|--------------------|-----------------------------------|
| Geometry | Box | Number | 1 |
| Width | 98 | Shape | Elongated with semi-circular ends |
| Height | 7.5 | Width at bottom | 6 |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | 1 |
| | | Length | 29 |
| Distance from low chord to deck | 2.5 | Shape of abutments | None |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 95 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 130 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID YB 4356

Spans

| | | | |
|---------------------------------|-----|--------------------|--------------------------------------|
| Geometry | Box | Number | 2 |
| Width | 116 | Shape | Triangular nose with 60 degree angle |
| Height | 6 | Width at bottom | 6.5 |
| Height where arch begins | | Width | 6.5 |
| | | Height at bottom | |
| | | Length | 39 |
| Distance from low chord to deck | 7 | Shape of abutments | None |
| Distance from deck to parapet | 0 | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 75 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 75 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID YB 4360

Spans

| | | | |
|---------------------------------|-----|--------------------|--------------------------------------|
| Geometry | Box | Number | 1 |
| Width | 91 | Shape | Triangular nose with 60 degree angle |
| Height | 9 | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 28 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|---------------------|----------------|--|
| Bottom width (ft) | 92 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 75 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 4.5 | | | | |

Bridge Information

Structure ID YB 4430

Spans

| | | | |
|---------------------------------|------|--------------------|--------------------------------------|
| Geometry | Box | Number | 1 |
| Width | 29.5 | Shape | Triangular nose with 60 degree angle |
| Height | 5 | Width at bottom | 3.5 |
| Height where arch begins | | Width | 1.5 |
| | | Height at bottom | 2 |
| | | Length | 16.5 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 27 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID YB 4435

Spans

| | | | |
|---------------------------------|------|--------------------|--------------------------------------|
| Geometry | Arch | Number | 1 |
| Width | 113 | Shape | Triangular nose with 60 degree angle |
| Height | 9.5 | Width at bottom | 5 |
| Height where arch begins | | Width | 5 |
| | | Height at bottom | |
| | | Length | 16 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 68 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush | Right | Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 85 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Bridge Information

Structure ID YB 4510

Spans

| | | | |
|---------------------------------|------|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 22.5 | Shape | |
| Height | 8.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 37.5 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 60 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID YB 4520

Spans

| | | Piers | |
|---------------------------------|-----|--------------------|------|
| Geometry | Box | Number | 0 |
| Width | 14 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 15.5 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | None |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 7.5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 8 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID YB 4525

Spans

| | | Piers | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 12 | Shape | |
| Height | 4.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|--|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|--|-------------------|------------------------------|----------------|---|
| Bottom width (ft) | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

Bridge Information

Structure ID YB 4610

Spans

| | | | |
|---------------------------------|-----|--------------------|--------------------------------------|
| Geometry | Box | Number | 1 |
| Width | 77 | Shape | Triangular nose with 60 degree angle |
| Height | 8 | Width at bottom | 5 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | 2.5 |
| | | Length | 19 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 71 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 85 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID YB 4725

Spans

| | | | |
|---------------------------------|-----|--------------------|--------------------------------------|
| Geometry | Box | Number | 2 |
| Width | 102 | Shape | Triangular nose with 60 degree angle |
| Height | 9 | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 2.5 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 102 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 4726 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 22 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 22 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|-------------------|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 22 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, short grass | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 22 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, short grass | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--|----------------|--|
| | | Bridge Information | | | |
| | | Structure ID YB 5905 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | | | |
| Width | | Shape | | | |
| Height | | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | | | |
| Distance from low chord to deck | | Shape of abutments | | | |
| Distance from deck to parapet | | Type of parapet | | | |
| Angle of skew of flow | | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 5910 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 22 | Shape | |
| Height | 4.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 48 |
| Distance from low chord to deck | 0.5 | Shape of abutments | None |
| Distance from deck to parapet | 1.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|---------------------------------|------|---------------------------|-------|
| | | Bridge Information | |
| | | Structure ID YB 5930 | |
| Spans | | Piers | |
| Geometry | Arch | Number | 0 |
| Width | 9 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | 0 | Width | |
| | | Height at bottom | |
| | | Length | 38 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 1 | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 17 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 20 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID YB 5931

Spans

| | | Piers | |
|---------------------------------|------|--------------------|-------------|
| Geometry | Box | Number | 2 |
| Width | 140 | Shape | Square nose |
| Height | 11.5 | Width at bottom | 4.5 |
| Height where arch begins | | Width | 4.5 |
| | | Height at bottom | |
| | | Length | 28 |
| Distance from low chord to deck | 3 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 140 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 150 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID YB 5935

Spans

| | | Piers | |
|---------------------------------|-------|--------------------|-----------------------------------|
| Geometry | ConSp | Number | 6 |
| Width | 688 | Shape | Elongated with semi-circular ends |
| Height | 25+ | Width at bottom | |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | |
| Distance from low chord to deck | 10 | Shape of abutments | |
| Distance from deck to parapet | 5 | Type of parapet | |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Left | | Left | |
| Bank Geom. Horiz. | | Right | | Right | |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Left | | Left | |
| Bank Geom. Horiz. | | Right | | Right | |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------|
| | | Bridge Information | |
| | | Structure ID YB 5937 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 37 | Shape | |
| Height | 8.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 25.5 |
| Distance from low chord to deck | | Shape of abutments | |
| Distance from deck to parapet | | Type of parapet | |
| Angle of skew of flow | | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 40 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 48 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 5940 | |
| Spans | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 101 | Shape | Circular |
| Height | 11 | Width at bottom | |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 110 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 95 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 5941 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 16 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 20 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Impervious with structures, commercial | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Paved or impervious | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 22 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Paved or impervious | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-------|
| | | Bridge Information | |
| | | Structure ID YB 5945 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 31 | Shape | |
| Height | 10 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 4 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|----|---------------------------------------|-----------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 21 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 12 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 35 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|------|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID YB 5946 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 15 | Shape | |
| Height | 10.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 36 |
| Distance from low chord to deck | 4.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|--|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|--------------------------------------|
| | | Bridge Information | |
| | | Structure ID YB 5947 | |
| Spans | | Piers | |
| Geometry | Box | Number | 2 |
| Width | 60 | Shape | Triangular nose with 60 degree angle |
| Height | 9.5 | Width at bottom | 5 |
| Height where arch begins | | Width | 3.5 |
| | | Height at bottom | 3 |
| | | Length | 12 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 4 | Type of parapet | Other |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 30 | Left | Impervious with structures, commercial | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|--|
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 21 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 12 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-------|
| | | Bridge Information | |
| | | Structure ID YB 5948 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 9 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 27 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 1 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--------------------------------|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 16 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-------|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID YB 5976 | |
| Spans | | Piers | |
| Geometry | Other | Number | 0 |
| Width | 103 | Shape | |
| Height | 12.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 5.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--------------------------------|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 79 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 81 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID YB 5977

Spans

| | | | |
|---------------------------------|------|--------------------|-----------------------------------|
| Geometry | Box | Number | 1 |
| Width | 150 | Shape | Elongated with semi-circular ends |
| Height | 10.5 | Width at bottom | |
| Height where arch begins | | Width | 3.5 |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 82 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 100 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID YB 5988

Spans

| | | | |
|---------------------------------|-------|--------------------|---------|
| Geometry | Other | Number | 0 |
| Width | 131 | Shape | |
| Height | 13.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 16 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 106 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 107 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Bridge Information

Structure ID YB 5993

Spans

| | | | |
|---------------------------------|-----|--------------------|-----------------------------------|
| Geometry | Box | Number | 2 |
| Width | 314 | Shape | Elongated with semi-circular ends |
| Height | 10 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | |
| Distance from low chord to deck | | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 160 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 9 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 166 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7.5 | | | | |

Bridge Information

Structure ID YB 6420

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 19 | Shape | |
| Height | 6.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 43 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 35 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|---------------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 7010 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 18 | Shape | |
| Height | 6.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 20 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|----|---------------------------------------|-----------------------|----------------|---------------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 16 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--------------------------------|----------------|---|
| | | Bridge Information | | | |
| | | Structure ID YB 7110 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | 0 | | |
| Width | 24 | Shape | | | |
| Height | 9 | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 15 | | |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical | | |
| Distance from deck to parapet | | Type of parapet | Guide Rail | | |
| Angle of skew of flow | 30 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID YB 7715

Spans

| | | Piers | |
|---------------------------------|-------|--------------------|--------------------------------------|
| Geometry | Other | Number | 1 |
| Width | 118 | Shape | Triangular nose with 30 degree angle |
| Height | 10 | Width at bottom | 4 |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | |
| | | Length | 19 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 90 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 92 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Bridge Information

Structure ID YB 8425

Spans

| | | Piers | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 23 | Shape | |
| Height | 7.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 35 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 18 | Left | Light brush and trees | Left | |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 20 | Left | Light brush and trees | Left | |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID YB 8450

Spans

| | | | |
|---------------------------------|-----|--------------------|-----------------------------------|
| Geometry | Box | Number | 1 |
| Width | 116 | Shape | Elongated with semi-circular ends |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 47 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 85 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 80 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID YB 8610

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 15 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | |
| Distance from low chord to deck | | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of Timber and Brush |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-------|
| | | Bridge Information | |
| | | Structure ID YB 8705 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 40 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 65 |
| Distance from low chord to deck | 2 | Shape of abutments | Other |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 90 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|-----------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-----------------------------------|
| | | Bridge Information | |
| | | Structure ID YB 8820 | |
| Spans | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 26 | Shape | Elongated with semi-circular ends |
| Height | 4.5 | Width at bottom | |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | |
| | | Length | 37 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 93 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 106 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 8910 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 17 | Shape | |
| Height | 4.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 26 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|---|---------------------------------------|--------------------------------|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID YB 8930 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 26 | Shape | |
| Height | 4.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 36 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--------------------------------|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 35 | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID YB 8981 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 9 | Shape | |
| Height | 8 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 145 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---------------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Cultivated area | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 16 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-------|
| | | Bridge Information | |
| | | Structure ID YB 8982 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 6 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 41.5 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--------------------------------|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Lawn, with trees and/or fences | Left | |
| Bank Geom. Horiz. | 3 | Right | Cultivated area | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Medium to dense brush | Left | |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 9005 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 17 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 60 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|-------|---------------------------|----------|
| | | Bridge Information | |
| | | Structure ID YB 9006 | |
| Spans | | Piers | |
| Geometry | Other | Number | 0 |
| Width | 105 | Shape | |
| Height | 7.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 17 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 73 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 83 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID YB 9065

Spans

| | | | |
|---------------------------------|------|--------------------|--------------------------------------|
| Geometry | Arch | Number | 3 |
| Width | 135 | Shape | Triangular nose with 30 degree angle |
| Height | 10.5 | Width at bottom | 7 |
| Height where arch begins | | Width | 2 |
| | | Height at bottom | |
| | | Length | 23 |
| Distance from low chord to deck | 5 | Shape of abutments | None |
| Distance from deck to parapet | 2 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 120 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 110 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID YB 9130

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 12 | Shape | |
| Height | 7.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|---------------------------------|
| | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 9135 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 10 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 75 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--------------------------------|----------------|---------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with buildings | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|-------|---------------------------|------------|
| | | Bridge Information | |
| | | Structure ID YB 9197 | |
| Spans | | Piers | |
| Geometry | Other | Number | 0 |
| Width | 138 | Shape | |
| Height | 14 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 30 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 145 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 10 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 120 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Bridge Information

Structure ID YB 9197.2

Spans

| | | Piers | |
|---------------------------------|-------|--------------------|------------|
| Geometry | Other | Number | 0 |
| Width | 30 | Shape | |
| Height | 9 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 30 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 30 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 30 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID YB 9198

Spans

| | | Piers | |
|---------------------------------|-------|--------------------|------------|
| Geometry | Other | Number | 0 |
| Width | 136 | Shape | |
| Height | 12 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 16 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 130 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 114 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID YB 9320 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 10 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 40 |
| Distance from low chord to deck | 2.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|-----------------------|----------------|---------------------------------|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Lawn, with buildings | Left | |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | | | |
|---------------------------------|------|---------------------------------------|--|----------------|--|
| | | Bridge Information | | | |
| | | Structure ID YB 9441 | | | |
| Spans | | Piers | | | |
| Geometry | Box | Number | 2 | | |
| Width | 235 | Shape | Elongated with semi-circular ends | | |
| Height | 26.5 | Width at bottom | | | |
| Height where arch begins | | Width | 3 | | |
| | | Height at bottom | | | |
| | | Length | 84 | | |
| Distance from low chord to deck | 5.5 | Shape of abutments | None | | |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier | | |
| Angle of skew of flow | 0 | | | | |
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 95 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 88 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |

| | | | |
|---------------------------------|------|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID YB 9945 | |
| Spans | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 13.5 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 42 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 2 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 21 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 0 | Right | Light brush and trees | Right | Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| | | Bridge Information | |
| | | Structure ID YB 9455 | |
| Spans | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 136 | Shape | Square nose |
| Height | 17 | Width at bottom | |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 42 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| | | Stream Channel Characteristics | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 115 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 121 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID YB 10105

Spans

| | | | |
|---------------------------------|-----|--------------------|----------|
| Geometry | Box | Number | 0 |
| Width | 8.5 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 50 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| | | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID YB 10220

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 15 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 39 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 2 | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics**Upstream**

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|---|
| Bottom width (ft) | 17 | Floodplain | | N Value | |
| | | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 21 | Floodplain | | N Value | |
| | | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Impervious with structures, commercial | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

CULVERTS

Culvert Information
Culvert ID 5821

Angle of Skew

| | | | |
|------------------------|---|------------------------|----|
| Geometry | Circular | Headwall to embankment | 45 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 80 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

Barrel Characteristics

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 71 |
| Bottom width | | Cover to top of deck | 5 |
| Greatest width | | | |
| Diameter | 7 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|---|
| Bottom width (ft) | 5.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|----------------------|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID 5825

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0.5 | | |

Barrel Characteristics

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 6 | Length | 35 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4.5 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|----------------------|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 4.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-------|---|---------|
| Spans | | Bridge Information Structure ID CC 1010 | |
| Geometry | Other | Piers | |
| Width | 208 | Number | 0 |
| Height | 16 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 10 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 156 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7 |
| Downstream | |
| Bottom width (ft) | 156 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

| | | | |
|---------------------------------------|--------------------------------|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Cultivated area | Left | Streams in wide valleys |
| Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Floodplain | | N Value | |
| Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Right | Cultivated area | Right | Clean and Straight - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---|-----------------------------------|
| Spans | | Bridge Information Structure ID CC 1020 | |
| Geometry | Box | Piers | |
| Width | 236 | Number | 2 |
| Height | 22 | Shape | Elongated with semi-circular ends |
| Height where arch begins | | Width at bottom | 5 |
| | | Width | 5 |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 10 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 190 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7 |
| Downstream | |
| Bottom width (ft) | 190 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Lawn, short grass | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Floodplain | | N Value | |
| Left | Light brush and trees | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 46 |
| Height | 13 |
| Height where arch begins | |
| | |
| Distance from low chord to deck | 2 |
| Distance from deck to parapet | 3.5 |
| Angle of skew of flow | 0 |

| | |
|---------------------------|------------------|
| Bridge Information | |
| Structure ID CC 1125 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 50 |
| | |
| Shape of abutments | Vertical |
| Type of parapet | Concrete Barrier |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 25 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |
| | |
| Downstream | |
| Bottom width (ft) | 27 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Scattered brush, heavy weeds | N Value | Left Streams in wide valleys |
| Right | Cultivated area | Right | Clean and Straight - Some Stones and Weeds |
| | | | |
| Floodplain | | | |
| Left | Lawn, with trees and/or fences | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 210 |
| Height | 18 |
| Height where arch begins | |
| | |
| Distance from low chord to deck | 5 |
| Distance from deck to parapet | 3 |
| Angle of skew of flow | 10 |

| | |
|---------------------------|-----------------------------------|
| Bridge Information | |
| Structure ID CC 1030 | |
| Piers | |
| Number | 1 |
| Shape | Elongated with semi-circular ends |
| Width at bottom | 4 |
| Width | 5 |
| Height at bottom | 14.5 |
| Length | 36 |
| | |
| Shape of abutments | Vertical |
| Type of parapet | Concrete Barrier |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 142 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 10 |
| | |
| Downstream | |
| Bottom width (ft) | 142 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 9 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 335 |
| Height | 10 |
| Height where arch begins | |
| Distance from low chord to deck | 4 |
| Distance from deck to parapet | 4 |
| Angle of skew of flow | 10 |

| | |
|---------------------------|--------------------------------------|
| Bridge Information | |
| Structure ID CC 1040 | |
| Piers | |
| Number | 4 |
| Shape | Triangular nose with 60 degree angle |
| Width at bottom | |
| Width | 4 |
| Height at bottom | |
| Length | 43 |
| Shape of abutments | Sloping |
| Type of parapet | Concrete Barrier |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 210 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

| | | |
|---------------------------------------|--|--|
| Stream Channel Characteristics | | |
| Floodplain | | |
| Left | Lawn, with trees and/or fences | N Value Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right Clean and Straight - Some Stones and Weeds |

| | |
|-------------------|-----|
| Downstream | |
| Bottom width (ft) | 210 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7.5 |

| | | |
|-------------------|--|--|
| Floodplain | | |
| Left | Medium to dense brush with scattered trees | N Value Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right Clean and Straight - Some Stones and Weeds |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 18 |
| Height | 5 |
| Height where arch begins | |
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | |
| Angle of skew of flow | 30 |

| | |
|---------------------------|------------|
| Bridge Information | |
| Structure ID CC 1150 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 33 |
| Shape of abutments | None |
| Type of parapet | Guide Rail |

| | |
|-------------------|--|
| Upstream | |
| Bottom width (ft) | |
| Bank Geom. Horiz. | |
| Bank Geom. Vert. | |
| Bank Full Depth | |

| | | |
|---------------------------------------|--------------------------------|--|
| Stream Channel Characteristics | | |
| Floodplain | | |
| Left | Lawn, with trees and/or fences | N Value Left Streams in wide valleys |
| Right | Light brush and trees | Right Sluggish Reaches - Weedy - Deep Pools |

| | |
|-------------------|-----|
| Downstream | |
| Bottom width (ft) | 18 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

| | | |
|-------------------|--|--|
| Floodplain | | |
| Left | Medium to dense brush | N Value Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right Sluggish Reaches - Weedy - Deep Pools |

Culvert Information
Culvert ID CC 1210

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 30 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 42 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 3.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4.5 | | | | |

Bridge Information

Structure ID CC 1310

Spans

| | |
|--------------------------|-----|
| Geometry | Box |
| Width | 14 |
| Height | 5.5 |
| Height where arch begins | |

Piers

| | |
|------------------|----|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 25 |

| | |
|---------------------------------|----|
| Distance from low chord to deck | 2 |
| Distance from deck to parapet | 0 |
| Angle of skew of flow | 40 |

| | |
|--------------------|------------|
| Shape of abutments | None |
| Type of parapet | Guide Rail |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 25 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 23 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID CC 1405

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0.5 | | |

Dimensions

| | | | |
|----------------|--|----------------------|----|
| Width | | Length | 74 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 4.5 | | | | |

Bridge Information
 Structure ID CC 1710

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Piers | |
| Width | 12 | Number | 0 |
| Height | 8 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 23 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 21 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID CC 1805

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 45 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 30 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4.5 | | | | |

Bridge Information

Structure ID CC 1905

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Piers | |
| Width | 15 | Number | 0 |
| Height | 6.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 25 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 23 | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 18 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 7 | | | | |

| | | |
|---------------------------------|-----|---------------------------|
| Spans | | Bridge Information |
| Geometry | Box | Structure ID CC 1935 |
| Width | 12 | Piers |
| Height | 5 | Number |
| Height where arch begins | | Shape |
| | | Width at bottom |
| | | Width |
| | | Height at bottom |
| | | Length |
| | | 24.5 |
| Distance from low chord to deck | 1.5 | Shape of abutments |
| Distance from deck to parapet | 0.5 | Vertical |
| Angle of skew of flow | 10 | Type of parapet |
| | | Guide Rail |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 18 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |
| Downstream | |
| Bottom width (ft) | 15 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

| | | | |
|---------------------------------------|--|----------------|---------------------------------------|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush | N Value | |
| | | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Floodplain | | | |
| Left | Medium to dense brush | N Value | |
| | | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |

Culvert Information
Culvert ID CC 1945

| | |
|------------------------|-----|
| Angle of Skew | |
| Geometry | Box |
| Material | RC |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |
| Dimensions | |
| Width | 8 |
| Bottom width | |
| Greatest width | |
| Diameter | |
| Height | 5 |

Barrel Characteristics

| | |
|------------------------|-----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 45 |
| Length | 60 |
| Cover to top of deck | 2.5 |

| | |
|---------------------------------------|----|
| Stream Channel Characteristics | |
| Upstream | |
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |
| Downstream | |
| Bottom width (ft) | 12 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

| | | | |
|-------------------|--|----------------|---|
| Floodplain | | | |
| Left | Lawn, with trees and/or fences | N Value | |
| | | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | | |
| Left | Scattered brush, heavy weeds | N Value | |
| | | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |

Culvert Information
Culvert ID CC 1950

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 50 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|---------------------------------------|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|---------------------------------------|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID CC 1965

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|----------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | HDPE | Headwall to pipe | |
| Entrance Type | | Stream to pipe | 45 |
| Entrance Design | | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 40 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | 2.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 2.5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID CC 1966

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 60 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 61 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-------------------|----------------|---|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID CC 3110

Spans

| | | | |
|---------------------------------|-----|--------------------|-----------------------------------|
| Geometry | Box | Piers | |
| Width | | Number | 2 |
| Height | | Shape | Elongated with semi-circular ends |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 38 |
| Distance from low chord to deck | | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 200 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 185 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID CC 4110

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Low Profile Arch | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | End section conformed to slope | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|----|----------------------|-----|
| Width | | Length | 36 |
| Bottom width | 9 | Cover to top of deck | 3.5 |
| Greatest width | 13 | | |
| Diameter | | | |
| Height | 7 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 19 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 9 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 18 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID CC 4120

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|---|------------------------|---|
| Geometry | Circular | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 0 |
| Entrance Design | Socket end of pipe (grooved end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 72 |
| Bottom width | | Cover to top of deck | 5.5 |
| Greatest width | | | |
| Diameter | 590 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|---------------------------------------|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 7 | | | | |

Culvert Information
Culvert ID CC 4130

Angle of Skew

| | |
|------------------------|---|
| Geometry | Circular |
| Material | RC |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls |
| Entrance Design | Socket end of pipe (grooved end) |
| Depth barrel is filled | 0.5 |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 20 |
| Headwall to pipe | 30 |
| Stream to pipe | 20 |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 30 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 4.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 9 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

Floodplain

| | |
|-------|--|
| Left | Scattered brush, heavy weeds |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---------------------------------------|
| Left | Streams in wide valleys |
| Right | Sluggish Reaches - Weedy - Deep Pools |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 9 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Lawn, with trees and/or fences |
| Right | Lawn, with buildings |

N Value

| | |
|-------|---------------------------------------|
| Left | Streams in wide valleys |
| Right | Sluggish Reaches - Weedy - Deep Pools |

Culvert Information
Culvert ID CC 4160

Angle of Skew

| | |
|------------------------|--|
| Geometry | Circular |
| Material | RC |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) |
| Entrance Design | Socket end of pipe (flared end) |
| Depth barrel is filled | 0 |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 45 |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 41 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | |
|-------------------|---|
| Bottom width (ft) | 5 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Scattered brush, heavy weeds |

N Value

| | |
|-------|---------------------------------------|
| Left | Streams in wide valleys |
| Right | Sluggish Reaches - Weedy - Deep Pools |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 5 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Scattered brush, heavy weeds |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Culvert Information
Culvert ID CC 4170

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 3 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 40 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 2 | | | | |

Bridge Information

Structure ID cc 5010

Piers

Spans

| | | | |
|---------------------------------|-----|--------------------|--------------------------------------|
| Geometry | Box | Number | 1 |
| Width | 185 | Shape | Triangular nose with 60 degree angle |
| Height | 13 | Width at bottom | 6 |
| Height where arch begins | | Width | 5 |
| | | Height at bottom | 1 |
| | | Length | 27 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 125 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 7 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 115 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 7 | | | | |

Culvert Information
Culvert ID CC 6255

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 20 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 67 |
| Bottom width | | Cover to top of deck | 6 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 3 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Winding - Ineffective slopes and sections |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 6.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID CC 6310

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 10 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 88 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 3 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 9 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|----------|
| Spans | | Bridge Information | |
| | | Structure ID CC 6450 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 169 | Shape | |
| Height | 16 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 160 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |
| Downstream | |
| Bottom width (ft) | 160 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

| | | | |
|---------------------------------------|--|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |

Culvert Information
Culvert ID CC 6510

| | |
|------------------------|----------|
| Angle of Skew | |
| Geometry | Circular |
| Material | TC |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |
| Dimensions | |
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 3.5 |
| Height | |

Barrel Characteristics

| | |
|------------------------|-----|
| Headwall to embankment | 20 |
| Headwall to pipe | 20 |
| Stream to pipe | 20 |
| Length | 45 |
| Cover to top of deck | 1.5 |

Stream Channel Characteristics

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---------------------------------------|
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8.5 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, short grass | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8.5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, short grass | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID CC 6610

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 20 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0.3 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 45 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID CC 8010

Spans

| | |
|--------------------------|-----|
| Geometry | Box |
| Width | 157 |
| Height | 11 |
| Height where arch begins | |

Piers

| | |
|------------------|---|
| Number | 2 |
| Shape | Square nose |
| Width at bottom | 3 |
| Width | 3 |
| Height at bottom | 6 ht from bottom of water to top flare. |

| | |
|---------------------------------|----|
| Distance from low chord to deck | 4 |
| Distance from deck to parapet | 3 |
| Angle of skew of flow | 20 |

Length 32

| | |
|--------------------|------------------|
| Shape of abutments | Vertical |
| Type of parapet | Concrete Barrier |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 150 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 6.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 150 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 6.5 | | | | |

Spans

| | |
|--------------------------|------|
| Geometry | Arch |
| Width | 25 |
| Height | 9 |
| Height where arch begins | 6.5 |

| | |
|---------------------------------|-----|
| Distance from low chord to deck | 3.5 |
| Distance from deck to parapet | . |
| Angle of skew of flow | 40 |

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 10 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 9 |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 7 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 9 |

Bridge Information

Structure ID CC 9610

Piers

| | |
|------------------|-------------|
| Number | 1 |
| Shape | Square nose |
| Width at bottom | 5.5 |
| Width | 2.5 |
| Height at bottom | 2.5 |
| Length | 22 |

| | |
|--------------------|------------|
| Shape of abutments | Vertical |
| Type of parapet | Guide Rail |

Stream Channel Characteristics**Floodplain**

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID CC 9710**Angle of Skew**

| | |
|------------------------|----------|
| Geometry | Circular |
| Material | CHDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

Dimensions

| | |
|----------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 4 |
| Height | |

Barrel Characteristics

| | |
|------------------------|---------|
| Headwall to embankment | DS - 20 |
| Headwall to pipe | |
| Stream to pipe | US - 10 |

| | |
|----------------------|----|
| Length | 55 |
| Cover to top of deck | 4 |

Stream Channel Characteristics**Upstream**

| | |
|-------------------|---|
| Bottom width (ft) | 5 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 5 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|-------------------------|
| Left | Streams in wide valleys |
| Right | |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|-------------------------|
| Left | Streams in wide valleys |
| Right | |

Culvert Information
Culvert ID CC 9810

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 2 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|------|
| Width | | Length | 39.5 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | 4.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4.5 | | | | |

Bridge Information

Structure ID CC 9910

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 10 | Shape | |
| Height | 8.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 27.5 |
| Distance from low chord to deck | 0.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 1 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 7 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 1 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 8 | | | | |

Culvert Information
Culvert ID CC 9911

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | | | |

Dimensions

| | | | |
|----------------|--|----------------------|----|
| Width | | Length | 52 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 1 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 8 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 6.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 1 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 6 | | | | |

Bridge Information

Structure ID CC 10005

Spans

| | |
|---------------------------------|-----|
| Geometry | Box |
| Width | 282 |
| Height | 12 |
| Height where arch begins | |
| Distance from low chord to deck | 2 |
| Distance from deck to parapet | 3 |
| Angle of skew of flow | 30 |

Piers

| | |
|--------------------|------------------|
| Number | 3 |
| Shape | Circular |
| Width at bottom | 3 |
| Width | 3 |
| Height at bottom | |
| Length | 32 |
| Shape of abutments | None |
| Type of parapet | Concrete Barrier |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 242 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 242 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| Spans | | Bridge Information | |
| | | Structure ID CC 10010 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 26 | Shape | |
| Height | 6.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 3.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 7 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID CC 10020

| | | | | | |
|---------------------------------------|------------------------------------|-------------------------------|--|----------------|---|
| Angle of Skew | | Barrel Characteristics | | | |
| Geometry | Squash Pipe | Headwall to embankment | | | |
| Material | CM | Headwall to pipe | | | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 | | |
| Entrance Design | Projected from fill (no headwall) | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | Length | 60 | | |
| Width | 5.5 | Cover to top of deck | 1 | | |
| Bottom width | | | | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 4.5 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID CC 10035

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 45 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 61 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 3 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID CC 10045

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Squash Pipe | Headwall to embankment | 20 |
| Material | CM | Headwall to pipe | 30 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 6.5 | Length | 40 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID CC 10060

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|------------------------------------|-------------------------------|--|----------------|---|
| Geometry | Elliptical | Headwall to embankment | | | |
| Material | CM | Headwall to pipe | | | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 | | |
| Entrance Design | Projected from fill (no headwall) | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | 5.5 | Length | 60 | | |
| Bottom width | | Cover to top of deck | 4.5 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 4 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID CC 10088

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|---|-------------------------------|------------------------------|----------------|---------------------------------------|
| Geometry | Elliptical | Headwall to embankment | | 30 | |
| Material | CM | Headwall to pipe | | 0 | |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | | 30 | |
| Entrance Design | Socket end of pipe (grooved end) | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | 12 | Length | 50 | | |
| Bottom width | | Cover to top of deck | 5 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 5.5 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | | Right | Scattered brush, heavy weeds | Right | |
| Bank Full Depth | | | | | |

Spans

Geometry Box
 Width 340
 Height 25+
 Height where arch begins

Distance from low chord to deck 0.5
 Distance from deck to parapet 2.5
 Angle of skew of flow 0

Upstream

Bottom width (ft) 230
 Bank Geom. Horiz. 2
 Bank Geom. Vert. 1
 Bank Full Depth 9

Downstream

Bottom width (ft) 230
 Bank Geom. Horiz. 2
 Bank Geom. Vert. 1
 Bank Full Depth 5.5

Bridge Information

Structure ID CC 10089

Piers

Number 3
 Shape Elongated with semi-circular ends
 Width at bottom 3
 Width 3
 Height at bottom
 Length 34

Shape of abutments None
 Type of parapet Guide Rail

Stream Channel**Characteristics****Floodplain**

Left Medium to dense brush with scattered trees
 Right Medium to dense brush with scattered trees

N Value

Left Streams in wide valleys
 Right Clean and Straight - No Rifts or Pools

Floodplain

Left Medium to dense brush with scattered trees
 Right Medium to dense brush with scattered trees

N Value

Left Streams in wide valleys
 Right Clean and Straight - No Rifts or Pools

Spans

Geometry Box
 Width 27
 Height 10.5
 Height where arch begins

Distance from low chord to deck 2
 Distance from deck to parapet
 Angle of skew of flow 0

Upstream

Bottom width (ft) 25
 Bank Geom. Horiz. 2
 Bank Geom. Vert. 1
 Bank Full Depth 9

Downstream

Bottom width (ft) 20
 Bank Geom. Horiz. 2
 Bank Geom. Vert. 1
 Bank Full Depth 11

Bridge Information

Structure ID CC 10090

Piers

Number 0
 Shape
 Width at bottom
 Width
 Height at bottom
 Length 29

Shape of abutments Vertical
 Type of parapet

Stream Channel**Characteristics****Floodplain**

Left Medium to dense brush with scattered trees
 Right Medium to dense brush with scattered trees

N Value

Left Streams in wide valleys
 Right Clean and Straight - No Rifts or Pools

Floodplain

Left Medium to dense brush with scattered trees
 Right Medium to dense brush with scattered trees

N Value

Left Streams in wide valleys
 Right Clean and Straight - No Rifts or Pools

Culvert Information
Culvert ID CC 10110

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 20 | Length | 92 |
| Bottom width | | Cover to top of deck | 11 |
| Greatest width | | | |
| Diameter | | | |
| Height | 8.5 | | |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | 0 |
| Headwall to pipe | 0 |
| Stream to pipe | 0 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 17 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|--|
| Left | Lawn, short grass |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 17 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|--|
| Left | Lawn, short grass |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Bridge Information
Structure ID CC 10120

Spans

| | |
|---------------------------------|-----|
| Geometry | Box |
| Width | 17 |
| Height | 7 |
| Height where arch begins | |
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | |
| Angle of skew of flow | 0 |

Piers

| | |
|------------------|----|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 16 |

| | |
|--------------------|------------|
| Shape of abutments | Vertical |
| Type of parapet | Guide Rail |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 13 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Lawn, with trees and/or fences |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 15 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID CC 10122 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 17 | Shape | |
| Height | 3.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---------------------------------------|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 9 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, short grass | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|----------------------------|--|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID CC 10127 | | | |
| Angle of Skew | | | |
| Geometry | Arch | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 43 |
| Width | | Cover to top of deck | 4.5 |
| Bottom width | 13.5 | | |
| Greatest width | | | |
| Diameter | | | |
| Height | 7.5 | | |

| | | | | | |
|---------------------------------------|-----|-------------------|--|----------------|---|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bottom width (ft) | 12 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 2 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID CC 10185

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 40 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID CC 10190

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 60 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 46 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4.5 | | | | |

Culvert Information
Culvert ID CC 10123

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | 8 | Length | 36 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 30 |
| Headwall to pipe | 0 |
| Stream to pipe | 45 |

Stream Channel Characteristics
Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 9 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---------------------------------------|
| Left | Streams in wide valleys |
| Right | Sluggish Reaches - Weedy - Deep Pools |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|-------------------------|
| Left | Streams in wide valleys |
| Right | |

Culvert Information
Culvert ID CC 10126

Angle of Skew

| | |
|------------------------|------------|
| Geometry | Elliptical |
| Material | CI |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 5.5 | Length | 26 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 45 |

Stream Channel Characteristics
Upstream

| | |
|-------------------|--|
| Bottom width (ft) | |
| Bank Geom. Horiz. | |
| Bank Geom. Vert. | |
| Bank Full Depth | |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 1 |

Floodplain

| | |
|-------|-------------------|
| Left | Lawn, short grass |
| Right | Lawn, short grass |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

| | | | |
|---------------------------------|------|---------------------------|-------|
| Spans | | Bridge Information | |
| | | Structure ID CC 10128 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 12.5 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 9 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID CC 10170

| | | | |
|------------------------|--|-------------------------------|-----|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 45 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 40 |
| Width | | Cover to top of deck | 1.5 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | 5.5 | | |
| Height | | | |

| | | | | | |
|---------------------------------------|---|-------------------|--|----------------|---------------------------------------|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | | Left | |
| Bottom width (ft) | | Right | | Right | |
| Bank Geom. Horiz. | | | | | |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID CC 10186

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 40 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID CC 10210

Spans

| | |
|--------------------------|-----|
| Geometry | Box |
| Width | 325 |
| Height | 25+ |
| Height where arch begins | |

Piers

| | |
|------------------|----------|
| Number | 3 |
| Shape | Circular |
| Width at bottom | 3 |
| Width | 3 |
| Height at bottom | |
| Length | 105 |

| | |
|---------------------------------|-----|
| Distance from low chord to deck | 4.5 |
| Distance from deck to parapet | 4 |
| Angle of skew of flow | 45 |

| | |
|--------------------|------------------|
| Shape of abutments | None |
| Type of parapet | Concrete Barrier |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 275 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 275 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 6.5 | | | | |

Culvert Information
Culvert ID CC 10223

Angle of Skew

| | | | |
|---------------|------------------------------------|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |

| | |
|------------------------|-----------------------------------|
| Entrance Design | Projected from fill (no headwall) |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 6.5 | Length | 40 |
| Bottom width | | Cover to top of deck | 5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|---|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 14 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID CC 10231

Angle of Skew

| | | | |
|---------------|---|------------------------|----|
| Geometry | Box | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | 45 |

| | |
|------------------------|----------------------|
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 14 | Length | 45 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 6.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID CC 10241

Angle of Skew

| | |
|------------------------|---|
| Geometry | Circular |
| Material | RC |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls |
| Entrance Design | Socket end of pipe (grooved end) |
| Depth barrel is filled | 0.5 |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 34 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | 2.5 | | |
| Height | | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 60 |
| Headwall to pipe | 0 |
| Stream to pipe | 0 |

Stream Channel Characteristics
Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 4 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 2.5 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Lawn, with trees and/or fences |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|--|
| Bottom width (ft) | |
| Bank Geom. Horiz. | |
| Bank Geom. Vert. | |
| Bank Full Depth | |

Floodplain

| | |
|-------|--|
| Left | |
| Right | |

N Value

| | |
|-------|--|
| Left | |
| Right | |

Culvert Information
Culvert ID CC 10243

Angle of Skew

| | |
|------------------------|------|
| Geometry | Arch |
| Material | RC |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 28 |
| Bottom width | 10 | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5.5 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 0 |
| Headwall to pipe | |
| Stream to pipe | 30 |

Stream Channel Characteristics
Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 8.5 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |

Floodplain

| | |
|-------|--|
| Left | Lawn, with trees and/or fences |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 12 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| Spans | | Bridge Information | |
| | | Structure ID CC 10245 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 12 | Shape | |
| Height | 7 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 38 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 2.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 11 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | | |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID CC 10247

| | | | | | |
|---------------------------------------|---|-------------------------------|--|----------------|---|
| Angle of Skew | | Barrel Characteristics | | | |
| Geometry | Box | Headwall to embankment | 45 | | |
| Material | RC | Headwall to pipe | | | |
| Entrance Type | Wingwalls at 10 to 25 degrees to Barrel | Stream to pipe | | | |
| Entrance Design | Square-edge at crown | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | Length | 22 | | |
| Width | 10 | Cover to top of deck | 1.5 | | |
| Bottom width | | | | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 4 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Paved or impervious | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 6 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID CC 11210

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|------|----------------------|-----|
| Width | 17.5 | Length | |
| Bottom width | | Cover to top of deck | 25+ |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | 0 |
| Headwall to pipe | 0 |
| Stream to pipe | 0 |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|-------------------|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|-------------------------|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID CC 11211

Angle of Skew

| | |
|------------------------|---|
| Geometry | Arch |
| Material | RC |
| Entrance Type | Wingwalls at 10 to 25 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|------|----------------------|----|
| Width | 17.5 | Length | 38 |
| Bottom width | | Cover to top of deck | |
| Greatest width | | | |
| Diameter | | | |
| Height | 7.5 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 30 |
| Headwall to pipe | 0 |
| Stream to pipe | 30 |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|------|-------------------|------------------------------|----------------|---|
| Bottom width (ft) | 10.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|------|-------------------|--|----------------|---|
| Bottom width (ft) | 11.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID CC 11470

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Mitered to conform to slope | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 61 |
| Bottom width | | Cover to top of deck | 7 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 2 | | | | |

Bridge Information

Structure ID CC 11485

Spans

| | |
|--------------------------|------|
| Geometry | Box |
| Width | 307 |
| Height | 15.5 |
| Height where arch begins | |

Piers

| | |
|------------------|-----------------------------------|
| Number | 3 |
| Shape | Elongated with semi-circular ends |
| Width at bottom | 4 |
| Width | 4 |
| Height at bottom | |
| Length | 45 |

| | |
|---------------------------------|-----|
| Distance from low chord to deck | 4 |
| Distance from deck to parapet | 2.5 |
| Angle of skew of flow | 15 |

| | |
|--------------------|------------------|
| Shape of abutments | None |
| Type of parapet | Concrete Barrier |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|---|
| Bottom width (ft) | 216 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|---|
| Bottom width (ft) | 216 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|------|---------------------------|-----------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID CC 11600 | |
| | | Piers | |
| Geometry | Box | Number | 4 |
| Width | 300 | Shape | Elongated with semi-circular ends |
| Height | 13.5 | Width at bottom | 6 |
| Height where arch begins | | Width | 3.5 |
| | | Height at bottom | 0.5 |
| | | Length | 25.5 |
| Distance from low chord to deck | 4.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--------------------------------|----------------|--|
| Upstream | | Stream Channel Characteristics | | | |
| | | Floodplain | | N Value | |
| Bottom width (ft) | 285 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 285 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID CC 11615

| | | | |
|------------------------|--|-------------------------------|----|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Circular | Headwall to embankment | 20 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 20 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

| | | | |
|-------------------|---|----------------------|-----|
| Dimensions | | | |
| Width | | Length | 71 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

| | | | | | |
|---------------------------------------|-----|-------------------|--------------------------------|----------------|---|
| Stream Channel Characteristics | | | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID CC 11630

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 42 |
| Bottom width | | Cover to top of deck | 0.5 |
| Greatest width | | | |
| Diameter | 5.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|----------------------|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| | | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID CC 11640

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Squash Pipe | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | 5 | Length | 38 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 1.5 | | | | |

Culvert Information
Culvert ID CC 11650

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 1 foot | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 114 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 2.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|-------------------|----------------|---------------------------------------|
| Bottom width (ft) | 14 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|---------------------------------------|
| Bottom width (ft) | 17 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 6.5 | | | | |

Culvert Information
Culvert ID CC 11665

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 56 |
| Bottom width | | Cover to top of deck | 3.5 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 1 | | | | |

Culvert Information
Culvert ID CC 11999

Angle of Skew

| | |
|------------------------|------------------------------------|
| Geometry | Circular |
| Material | CM |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch |
| Entrance Design | Projected from fill (no headwall) |
| Depth barrel is filled | 0 |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 30 |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 58 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 6 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | |
|-------------------|----|-------------------|--|----------------|
| Bottom width (ft) | 13 | Floodplain | | N Value |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right |
| Bank Full Depth | 5 | | | |

Downstream

| | | | | |
|-------------------|----|-------------------|--|----------------|
| Bottom width (ft) | 12 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right |
| Bank Full Depth | 5 | | | |

Bridge Information

Structure ID CC 12000

Piers

Spans

| | | | |
|---------------------------------|-----|--------------------|--------------------------------------|
| Geometry | Box | Number | 3 |
| Width | 256 | Shape | Triangular nose with 30 degree angle |
| Height | 15 | Width at bottom | 3 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 43 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 4 | Type of parapet | Guide Rail |
| Angle of skew of flow | 15 | | |

Stream Channel Characteristics

Upstream

| | | | | |
|-------------------|-----|-------------------|--|--|
| Bottom width (ft) | 207 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | |

Downstream

| | | | | |
|-------------------|-----|-------------------|--|--|
| Bottom width (ft) | 207 | Floodplain | | N Value |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | | |

| | | | |
|---------------------------------|------|---------------------------|-----------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID CC 12005 | |
| Geometry | Box | Piers | |
| Width | 600 | Number | 7 |
| Height | 25++ | Shape | Elongated with semi-circular ends |
| Height where arch begins | | Width at bottom | 3 |
| | | Width | 3 |
| | | Height at bottom | |
| | | Length | 44 |
| Distance from low chord to deck | 4 | Shape of abutments | None |
| Distance from deck to parapet | 4 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | | |
| Bottom width (ft) | 240 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 240 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID CC 12010

| | | | |
|------------------------|------------------------------------|-------------------------------|----|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0.5 | | |
| Dimensions | | Length | 49 |
| Width | | Cover to top of deck | 2 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

| | | | | | |
|---------------------------------------|-----|-------------------|--|----------------|--|
| Stream Channel Characteristics | | | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|------|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID CC 12101 | |
| Geometry | Box | Piers | |
| Width | 23.5 | Number | 0 |
| Height | 8.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 37 |
| Distance from low chord to deck | 3 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|------|---------------------------------------|--------------------------------|----------------|--|
| Upstream | | Stream Channel Characteristics | | | |
| Bottom width (ft) | 13.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3.1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Culvert Information
Culvert ID CC 12102

| | | | |
|------------------------|--|-------------------------------|------|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Box | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | 60 |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 76.5 |
| Width | 26.5 | Cover to top of deck | 2 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

| | | | | | |
|---------------------------------------|------|-------------------|--|----------------|---|
| Stream Channel Characteristics | | | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13.5 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID CC 12110 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 17 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 36 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 15 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | | |
| | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID CC 12111

| | | | |
|------------------------|--|-------------------------------|-----|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Elliptical | Headwall to embankment | 30 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0.5 | | |
| Dimensions | | Length | 112 |
| Width | 14 | Cover to top of deck | 2.5 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | | | |
| Height | 6 | | |

| | | | | | |
|---------------------------------------|-----|-------------------|--------------------------------|----------------|---|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bottom width (ft) | 11 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 3 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID CC 12119

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Barrel Characteristics

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 5.5 | Length | 58 |
| Bottom width | | Cover to top of deck | 4.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID CC 12120

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Box | Headwall to embankment | 20 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | 20 |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Barrel Characteristics

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 7 | Length | 61 |
| Bottom width | | Cover to top of deck | 8 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID CC 12125

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 8 | Length | 87 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | N Value |
|-------------------|---|-------------------|----------------|
| Bottom width (ft) | | Left | Left |
| Bank Geom. Horiz. | | Right | Right |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | | | |

Downstream

| | | Floodplain | N Value |
|-------------------|-----|-------------------|---------------------------------------|
| Bottom width (ft) | 12 | Left | Scattered brush, heavy weeds Left |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds Right |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 6.5 | | |

Culvert Information
Culvert ID CC 12135

| Angle of Skew | | Barrel Characteristics | |
|------------------------|--|-------------------------------|-----|
| Geometry | Box | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | 0 |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 7 | Length | 71 |
| Bottom width | | Cover to top of deck | 3.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | N Value |
|-------------------|--|-------------------|----------------|
| Bottom width (ft) | | Left | Left |
| Bank Geom. Horiz. | | Right | Right |
| Bank Geom. Vert. | | | |
| Bank Full Depth | | | |

Downstream

| | | Floodplain | N Value |
|-------------------|----|-------------------|---|
| Bottom width (ft) | 11 | Left | Lawn, with buildings Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with buildings Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 4 | | |

| | | | |
|---------------------------------|------|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID CC 12136 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 12.5 | Shape | |
| Height | 3.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 50 |
| Distance from low chord to deck | 2 | Shape of abutments | |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 9 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8.5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|------|---------------------------|-------|
| Spans | | Bridge Information | |
| | | Structure ID DR 5101 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 16.5 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---------------------------------------|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 10 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID DR 5110 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 25 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 20 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |
| Downstream | |
| Bottom width (ft) | 21 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID DR 5120 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 30 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 26 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 13 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |
| Downstream | |
| Bottom width (ft) | 21 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |

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|---------------------------------|-----|---------------------------|--------------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID DR 5125 | |
| Geometry | Box | Piers | |
| Width | 45 | Number | 1 |
| Height | 6 | Shape | Triangular nose with 60 degree angle |
| Height where arch begins | | Width at bottom | 4 |
| | | Width | 3 |
| | | Height at bottom | 1 |
| | | Length | 42 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3.5 | Type of parapet | Other |
| Angle of skew of flow | 10 | | |

| | | | | |
|-------------------|----|---------------------------------------|--|---|
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | 18 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 16 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5 | | | |

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|---------------------------|---|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID DR 5210 | | | |
| Angle of Skew | | Headwall to embankment | 0 |
| Geometry | Box | Headwall to pipe | 0 |
| Material | RC | Stream to pipe | 0 |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | | |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 38 |
| Width | 7 | Cover to top of deck | 2.5 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

| | | | | |
|---------------------------------------|---|-------------------|--|--|
| Stream Channel Characteristics | | Floodplain | | N Value |
| Upstream | | Left | Impervious with structures, commercial | Left Streams in wide valleys |
| Bottom width (ft) | 8 | Right | Cultivated area | Right Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Horiz. | 2 | | | |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 3 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 8 | Left | Lawn, with trees and/or fences | Left Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5 | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID DR 5310 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 21 | Shape | |
| Height | 5.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 13 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |
| Downstream | |
| Bottom width (ft) | 11 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|------------------------------|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Lawn, with buildings | N Value | Left Streams in wide valleys |
| Right | Lawn, short grass | Right | Clean and Winding - Some Pools and Shoals |
| Floodplain | | | |
| Left | Lawn, with buildings | N Value | Left Streams in wide valleys |
| Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID DR 5410

| | | | |
|------------------------|------------------------------------|-------------------------------|----|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 15 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 7 | Length | 29 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4.5 | | |

| | | | |
|---------------------------------------|----|-------------------|--|
| Stream Channel Characteristics | | | |
| Upstream | | | |
| Bottom width (ft) | 15 | Floodplain | N Value |
| Bank Geom. Horiz. | 3 | Left | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Right Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | |
| Downstream | | | |
| Bottom width (ft) | 19 | Floodplain | N Value |
| Bank Geom. Horiz. | 3 | Left | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Right Clean and Winding - More Stones |
| Bank Full Depth | 3 | | |

| | | | |
|---------------------------------|-----|---|--------------------------------------|
| Spans | | Bridge Information Structure ID DR 5420 | |
| Geometry | Box | Piers | |
| Width | 44 | Number | 1 |
| Height | 5.5 | Shape | Triangular nose with 60 degree angle |
| Height where arch begins | | Width at bottom | 5 |
| | | Width | 3 |
| | | Height at bottom | 2 |
| | | Length | 28 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 20 | | |

| | | | | |
|-------------------|-----|---------------------------------------|--|---|
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | 9 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - More Stones |
| Bank Full Depth | 3.5 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 39 | Left | Lawn, with buildings | Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with buildings | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5.5 | | | |

| | | | | |
|---------------------------------|-----|---|--|---|
| Spans | | Bridge Information Structure ID DR 5430 | | |
| Geometry | Box | Piers | | |
| Width | 9.5 | Number | 0 | |
| Height | 4 | Shape | | |
| Height where arch begins | | Width at bottom | | |
| | | Width | | |
| | | Height at bottom | | |
| | | Length | 21 | |
| Distance from low chord to deck | 1.5 | Shape of abutments | None | |
| Distance from deck to parapet | | Type of parapet | Concrete Barrier | |
| Angle of skew of flow | 30 | | | |
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | 11 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - More Stones |
| Bank Full Depth | 4 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 7 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 4.5 | | | |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID DR 5510 | |
| Geometry | Box | Piers | |
| Width | 17 | Number | 0 |
| Height | 5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 50 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 3.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 35 | | |

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|-------------------|----|---------------------------------------|--------------------------------|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 8 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|--|---|-------------------------------|-----|
| Culvert Information Culvert ID DR 5610 | | Barrel Characteristics | |
| Angle of Skew | | | |
| Geometry | Elliptical | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 150 |
| Width | 9 | Cover to top of deck | 5.5 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

| | | | | | |
|---------------------------------------|----|-------------------|--|----------------|--|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Paved or impervious | Left | |
| Bottom width (ft) | | Right | Medium to dense brush with scattered trees | Right | |
| Bank Geom. Horiz. | | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 17 | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Culvert Information
Culvert ID DR 5611

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Box | Headwall to embankment | 10 |
| Material | PVC | Headwall to pipe | 0 |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | 10 |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 0 | | |

| Dimensions | | | |
|-------------------|---|----------------------|-----|
| Width | 7 | Length | 60 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | N Value |
|-------------------|---|---|---|
| Bottom width (ft) | 9 | Left Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right Medium to dense brush with scattered trees | Right Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 5 | | |

Downstream

| | | Floodplain | N Value |
|-------------------|--|-------------------|----------------|
| Bottom width (ft) | | Left | Left |
| Bank Geom. Horiz. | | Right | Right |
| Bank Geom. Vert. | | | |
| Bank Full Depth | | | |

Culvert Information
Culvert ID DR 5710

| Angle of Skew | | Barrel Characteristics | |
|------------------------|--|-------------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 10 |
| Material | CM | Headwall to pipe | 30 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

| Dimensions | | | |
|-------------------|---|----------------------|----|
| Width | 6 | Length | 33 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | N Value |
|-------------------|---|----------------------------|--|
| Bottom width (ft) | 9 | Left Lawn, short grass | Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right Lawn, short grass | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 4 | | |

Downstream

| | | Floodplain | N Value |
|-------------------|----|----------------------------|--|
| Bottom width (ft) | 10 | Left Lawn, short grass | Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right Lawn, short grass | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 5 | | |

Culvert Information
Culvert ID DR 5720

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|------------------------------------|-------------------------------|----------------------|----------------|---------------------------------|
| Geometry | Elliptical | Headwall to embankment | | | |
| Material | CM | Headwall to pipe | | | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 | | |
| Entrance Design | Projected from fill (no headwall) | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | 6 | Length | 38 | | |
| Bottom width | | Cover to top of deck | 1 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 3.5 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Winding - More Stones |
| Bank Full Depth | 2 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID DR 5822

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|---|-------------------------------|----------------------|----------------|---|
| Geometry | Circular | Headwall to embankment | | 45 | |
| Material | RC | Headwall to pipe | | 0 | |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | | 70 | |
| Entrance Design | Square cut end of pipe (straight end) | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | | Length | 66 | | |
| Bottom width | | Cover to top of deck | 4 | | |
| Greatest width | | | | | |
| Diameter | 7 | | | | |
| Height | | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - More Stones |
| Bank Full Depth | 2.5 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|-------|---|-------|
| Spans | | Bridge Information Structure ID FR 6210 | |
| Geometry | Other | Piers | |
| Width | 16.5 | Number | 0 |
| Height | 6.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 11 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|------|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 16 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15.5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|--|------------------------------------|-------------------------------|-----|
| Culvert Information Culvert ID FR 6310 | | Barrel Characteristics | |
| Angle of Skew | | | |
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 5 | Length | 40 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.8 | | |

| | | | | | |
|---------------------------------------|-----|-------------------|-----------------------|----------------|--|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Light brush and trees | Left | |
| Bottom width (ft) | 5.5 | Right | Light brush and trees | Right | |
| Bank Geom. Horiz. | 2 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 4.5 | Left | Light brush and trees | Left | |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID FR 6410

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Squash Pipe | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 5.5 | Length | 39 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.7 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID FR 6420

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Piers | |
| Width | 13 | Number | 0 |
| Height | 4.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|------|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 12.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 5.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID FR 6510

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|----------|-------------------------------|--------------------------------|----------------|---|
| Geometry | Circular | Headwall to embankment | | | |
| Material | HDPE | Headwall to pipe | | | |
| Entrance Type | | Stream to pipe | 20 | | |
| Entrance Design | | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | | Length | 40.5 | | |
| Bottom width | | Cover to top of deck | 1 | | |
| Greatest width | | | | | |
| Diameter | 4 | | | | |
| Height | | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 7.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 9.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2.5 | | | | |

Culvert Information
Culvert ID FR 6610

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|--|-------------------------------|--|----------------|--|
| Geometry | Elliptical | Headwall to embankment | | 0 | |
| Material | CM | Headwall to pipe | | 0 | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | | 0 | |
| Entrance Design | Headwall or headwall and wingwalls square edge | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | 5 | Length | 47 | | |
| Bottom width | | Cover to top of deck | 2.5 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 4 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Full Depth | 6 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 4 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID FR 6620 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 14 | Shape | |
| Height | 5.3 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 28 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 12 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |
| Downstream | |
| Bottom width (ft) | 7 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

| | | | |
|---------------------------------------|------------------------------|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Scattered brush, heavy weeds | N Value | Streams in wide valleys |
| Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Floodplain | | | |
| Left | Medium to dense brush | N Value | Streams in wide valleys |
| Right | Medium to dense brush | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Culvert Information
Culvert ID FR 6720

| | |
|------------------------|----------|
| Angle of Skew | |
| Geometry | Circular |
| Material | HDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | |
| Dimensions | |
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 2 |
| Height | |

Barrel Characteristics

| | |
|------------------------|------|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 45 |
| Length | 40.5 |
| Cover to top of deck | 1 |

| | |
|---------------------------------------|-----|
| Stream Channel Characteristics | |
| Upstream | |
| Bottom width (ft) | 6.5 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |
| Downstream | |
| Bottom width (ft) | 9.5 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

| | | | |
|-------------------|--|----------------|------|
| Floodplain | | | |
| Left | Paved or impervious | N Value | Left |
| Right | Cultivated area | Right | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left |
| Right | Medium to dense brush with scattered trees | Right | |

| | | | |
|---------------------------------|------|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID FR 6725 | |
| Geometry | Arch | Piers | |
| Width | 8.5 | Number | 0 |
| Height | 6.3 | Shape | |
| Height where arch begins | 3.3 | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 22.5 |
| Distance from low chord to deck | 0.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |
| Downstream | |
| Bottom width (ft) | 10 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |

| | | | |
|---------------------------------------|--------------------------------|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Lawn, with trees and/or fences | N Value | Left Streams in wide valleys |
| Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | | |
| Left | Medium to dense brush | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush | Right | Clean and Winding - More Stones |

Culvert Information
Culvert ID FR 6730 continued

| | | | |
|------------------------|------------------------------------|-------------------------------|------|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 34.5 |
| Width | | Cover to top of deck | 1 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

| | | | |
|---------------------------------------|--|-------------------|--|
| Stream Channel Characteristics | | | |
| Upstream | | | |
| Bottom width (ft) | | Floodplain | N Value |
| Bank Geom. Horiz. | | Left | Lawn, with trees and/or fences |
| Bank Geom. Vert. | | Right | Cultivated area |
| Bank Full Depth | | Right | Sluggish Reaches - Weedy - Deep Pools |
| Downstream | | | |
| Bottom width (ft) | | Floodplain | N Value |
| Bank Geom. Horiz. | | Left | Pasture or field with no brush |
| Bank Geom. Vert. | | Right | Scattered brush, heavy weeds |
| Bank Full Depth | | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Culvert Information
Culvert ID FR 6730

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Barrel Characteristics

Dimensions

| | | | |
|----------------|---|----------------------|------|
| Width | | Length | 34.5 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|--------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | | Floodplain | | N Value | |
| | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Cultivated area | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|------------------------------|----------------|---------------------------------|
| Bottom width (ft) | | Floodplain | | N Value | |
| | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Scattered brush, heavy weeds | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID FR 6735

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 10 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Barrel Characteristics

Dimensions

| | | | |
|----------------|---|----------------------|------|
| Width | | Length | 25.5 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| | | Left | Lawn, with buildings | Left | |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 6.5 | Floodplain | | N Value | |
| | | Left | Pasture or field with no brush | Left | |
| Bank Geom. Horiz. | 3 | Right | Cultivated area | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Culvert Information
Culvert ID FR 6805

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 1 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | 9 | Length | 63 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---------------------------------|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - More Stones |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 8 | | | | |

Culvert Information
Culvert ID FR 6810

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|-------|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0; 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 7 | Length | 63 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---------------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - More Stones |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID FR 6820

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Elliptical | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 5 | Length | 35 |
| Bottom width | | Cover to top of deck | 0 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 7.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 7.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID FR 6821

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 30 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 60 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 4.5 | Length | 47 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Full Depth | 2.5 | | | | |

Culvert Information
Culvert ID FR 6830

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 30 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 6.5 | Length | 88 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID FR 7110

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 42 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|--|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Pasture or field with no brush | Left | |
| Bank Geom. Vert. | | Right | Scattered brush, heavy weeds | Right | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Vert. | | Right | Medium to dense brush | Right | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID FR 7130

Angle of Skew

| | |
|------------------------|----------|
| Geometry | Circular |
| Material | HDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

Dimensions

| | |
|----------------|-----|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 1.5 |
| Height | |

Stream Channel Characteristics

Upstream

| | |
|-------------------|--|
| Bottom width (ft) | |
| Bank Geom. Horiz. | |
| Bank Geom. Vert. | |
| Bank Full Depth | |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 4.5 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 0 |

| | |
|----------------------|----|
| Length | 34 |
| Cover to top of deck | 0 |

Floodplain

| | | |
|-------|------------------------------|------------------------|
| Left | Lawn, short grass | N Value Left |
| Right | Scattered brush, heavy weeds | Right |

Floodplain

| | | |
|-------|-------------------|------------------------|
| Left | Cultivated area | N Value Left |
| Right | Lawn, short grass | Right |

Bridge Information

Structure ID FR 7210

Spans

| | |
|---------------------------------|-----|
| Geometry | Box |
| Width | 11 |
| Height | 9 |
| Height where arch begins | |
| Distance from low chord to deck | 1 |
| Distance from deck to parapet | |
| Angle of skew of flow | 0 |

Piers

| | |
|--------------------|------------|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 34 |
| Shape of abutments | None |
| Type of parapet | Guide Rail |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6.5 |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | | | |
|-------|-------------------|------------------------|--|
| Left | Lawn, short grass | N Value Left | Streams in wide valleys |
| Right | Lawn, short grass | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Floodplain

| | | |
|-------|------------------------------|------------------------|
| Left | Scattered brush, heavy weeds | N Value Left |
| Right | Scattered brush, heavy weeds | Right |

Culvert Information
Culvert ID FR 7310

| Angle of Skew | |
|------------------------|----------|
| Geometry | Circular |
| Material | HDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

| Dimensions | |
|-------------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 2 |
| Height | |

Stream Channel Characteristics

| Upstream | |
|-------------------|-----|
| Bottom width (ft) | 5.5 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

| Downstream | |
|-------------------|---|
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 2 |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 0 |

| | |
|----------------------|-----|
| Length | 46 |
| Cover to top of deck | 1.5 |

| Floodplain | | N Value |
|-------------------|-------------------|----------------|
| Left | Lawn, short grass | Left |
| Right | Lawn, short grass | Right |

| Floodplain | | N Value |
|-------------------|--------------------------------|----------------|
| Left | Lawn, with trees and/or fences | Left |
| Right | Lawn, with trees and/or fences | Right |

Culvert Information
Culvert ID FR 7405

| Angle of Skew | |
|------------------------|----------|
| Geometry | Circular |
| Material | HDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

| Dimensions | |
|-------------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 2 |
| Height | |

Stream Channel Characteristics

| Upstream | |
|-------------------|---|
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 2 |

| Downstream | |
|-------------------|----|
| Bottom width (ft) | 12 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 20 |

| | |
|----------------------|-----|
| Length | 41 |
| Cover to top of deck | 1.5 |

| Floodplain | | N Value |
|-------------------|--------------------------------|--|
| Left | Scattered brush, heavy weeds | Left Streams in wide valleys |
| Right | Lawn, with trees and/or fences | Right Very Weedy - Deep Pools - Floodways with Heavy Stands of |

| Floodplain | | N Value |
|-------------------|--|--|
| Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Culvert Information
Culvert ID FR 7410

| Angle of Skew | |
|------------------------|----------|
| Geometry | Circular |
| Material | HDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

| Dimensions | |
|-------------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 2 |
| Height | |

Stream Channel Characteristics

| Upstream | |
|-------------------|---|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

| Downstream | |
|-------------------|-----|
| Bottom width (ft) | 5.5 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 2.5 |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 30 |

| | |
|----------------------|----|
| Length | 37 |
| Cover to top of deck | 1 |

| Floodplain | |
|-------------------|---------------------|
| Left | Paved or impervious |
| Right | Lawn, short grass |

| N Value | |
|----------------|--|
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Culvert Information
Culvert ID FR 7420

| Angle of Skew | |
|------------------------|----------|
| Geometry | Circular |
| Material | HDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

| Dimensions | |
|-------------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 3 |
| Height | |

Stream Channel Characteristics

| Upstream | |
|-------------------|-----|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 2.5 |

| Downstream | |
|-------------------|---|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 10 |

| | |
|----------------------|----|
| Length | 38 |
| Cover to top of deck | 1 |

| Floodplain | |
|-------------------|-------------------|
| Left | Lawn, short grass |
| Right | Lawn, short grass |

| N Value | |
|----------------|--|
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

| Floodplain | |
|-------------------|---------------------|
| Left | Lawn, short grass |
| Right | Paved or impervious |

| N Value | |
|----------------|--|
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Culvert Information
Culvert ID HR 10310

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|----|----------------------|-----|
| Width | 17 | Length | 180 |
| Bottom width | | Cover to top of deck | 6 |
| Greatest width | | | |
| Diameter | | | |
| Height | 12 | | |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | 0 |
| Headwall to pipe | 0 |
| Stream to pipe | 0 |

Stream Channel Characteristics
Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 28 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 23 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 11 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Culvert Information
Culvert ID HR 10340

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|----|----------------------|----|
| Width | 13 | Length | 22 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 13 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 45 |
| Headwall to pipe | 0 |
| Stream to pipe | |

Stream Channel Characteristics
Upstream

| | |
|-------------------|---|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 1 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Pasture or field with no brush |
| Right | Pasture or field with no brush |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 10 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|-----------------|
| Left | Cultivated area |
| Right | Cultivated area |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Culvert Information
Culvert ID HR 10355

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|----------|-------------------------------|--------------------------------|----------------|--|
| Geometry | Circular | Headwall to embankment | | | |
| Material | CI | Headwall to pipe | | | |
| Entrance Type | | Stream to pipe | | 0 | |
| Entrance Design | | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | | Length | 29 | | |
| Bottom width | | Cover to top of deck | 1 | | |
| Greatest width | | | | | |
| Diameter | 7 | | | | |
| Height | | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 2 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 25 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID HR 10375

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|------------------------------------|-------------------------------|--------------------------------|----------------|--|
| Geometry | Elliptical | Headwall to embankment | | | |
| Material | CM | Headwall to pipe | | | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | | 0 | |
| Entrance Design | End section conformed to slope | | | | |
| Depth barrel is filled | .5 | | | | |
| Dimensions | | | | | |
| Width | 5.5 | Length | 35 | | |
| Bottom width | | Cover to top of deck | 2 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 4 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID HR 10380

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|---|-------------------------------|--------------------------------|----------------|--|
| Geometry | Box | Headwall to embankment | | | |
| Material | RC | Headwall to pipe | | | |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | 45 | | |
| Entrance Design | Square-edge at crown | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | 10 | Length | 20 | | |
| Bottom width | | Cover to top of deck | 1 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 4 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 14 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID HR 10385

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|--|-------------------------------|-------------------|----------------|--|
| Geometry | Elliptical | Headwall to embankment | | | |
| Material | CM | Headwall to pipe | | | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 | | |
| Entrance Design | Headwall or headwall and wingwalls square edge | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | 4 | Length | 40 | | |
| Bottom width | | Cover to top of deck | 1.5 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 3 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 10.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Cultivated area | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Culvert Information
Culvert ID HR 10420

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 40 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 7 | | | | |

Culvert Information
Culvert ID HR 10421

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|---|------------------------|--|
| Geometry | Box | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 10 | Length | 29 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------|----------------|--|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Cultivated area | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID HR 10430

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 45 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 25 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID HR 10503

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|---|------------------------|--|
| Geometry | Box | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no Stream to pipe wingwalls) | | |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 7 | Length | 19 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 1.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 2 | | | | |

Culvert Information
Culvert ID HR 10511

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 20 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 20 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID HR 10520

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 1 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 3.5 | Length | 41 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID HZR 11710

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 45 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 60 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|----|----------------------|----|
| Width | 22 | Length | 71 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 9 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 20 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|---------------------------------------|
| Bottom width (ft) | 27 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID HZR 11711

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 45 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|----|----------------------|-----|
| Width | 22 | Length | 64 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 9 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|------|-------------------|--|----------------|---|
| Bottom width (ft) | 12.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID HZR 11715

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 60 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 60 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0.5 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 29 | Length | 102 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 8.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 7 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 24 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID HZR 11761

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 46 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left | |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID HZR 11764

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 60 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 6 | Length | 58 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Bridge Information

Structure ID HZR 11765

Spans

| | | | |
|---------------------------------|-----|--------------------|----------|
| Geometry | Box | Piers | |
| Width | 16 | Number | 0 |
| Height | 7 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 17.5 |
| Distance from low chord to deck | 0.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|---|
| Bottom width (ft) | 18 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6.5 | | | | |

Culvert Information
Culvert ID HZR 11775

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 60 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 18 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Culvert Information
Culvert ID HZR 11791

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Box | Headwall to embankment | |
| Material | RM | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | 20 |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|------|
| Width | 6 | Length | 33.5 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID HZR 11792

Angle of Skew

| | |
|------------------------|---|
| Geometry | Elliptical |
| Material | RC |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls |
| Entrance Design | Square-edged on three edges |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 8 | Length | 46 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 20 |
| Headwall to pipe | 0 |
| Stream to pipe | 20 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 5 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|-------------------------|
| Left | Streams in wide valleys |
| Right | |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 11 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Scattered brush, heavy weeds |

N Value

| | |
|-------|-------------------------|
| Left | Streams in wide valleys |
| Right | |

Culvert Information
Culvert ID HZR 11793

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 8 | Length | 28 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 8 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 45 |
| Headwall to pipe | 0 |
| Stream to pipe | 45 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Lawn, with trees and/or fences |
| Right | Lawn, with trees and/or fences |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 9.5 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

Floodplain

| | |
|-------|-----------------------|
| Left | Light brush and trees |
| Right | Light brush and trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID LD 3615

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 37 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID LD 3620

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 21 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 28 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 2.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 24 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID LD 3621

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 21 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 1 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 1 | | | | |

Culvert Information
Culvert ID LD 3625

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|----------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | HDPE | Headwall to pipe | |
| Entrance Type | | Stream to pipe | 10 |
| Entrance Design | | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 31 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|---------------------|----------------|---------------------------------------|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2 | | | | |

Culvert Information
Culvert ID LD 3715

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 42 |
| Bottom width | | Cover to top of deck | 5 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |

Bridge Information

Structure ID LR 8105

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 19 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 16 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|------|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 26.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 1 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|------|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 26.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID LR 8110 | |
| Geometry | Box | Piers | |
| Width | 43 | Number | 0 |
| Height | 8.5 | Shape | |
| Height where arch begins | 4 | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 73 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 35 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Left | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 34 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|------|---|-------------|
| Spans | | Bridge Information Structure ID LR 8320 | |
| Geometry | Arch | Piers | |
| Width | 12.5 | Number | 1 |
| Height | 5.5 | Shape | Square nose |
| Height where arch begins | 5.5 | Width at bottom | 2.5 |
| | | Width | 2.5 |
| | | Height at bottom | 5.5 |
| | | Length | 13 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 35 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 28 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|------|---|------------|
| Spans | | Bridge Information Structure ID LR 8330 | |
| Geometry | Box | Piers | |
| Width | 26.5 | Number | 0 |
| Height | 4 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 22 |
| Distance from low chord to deck | 2 | Shape of abutments | Other |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 30 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 34 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Dense willows or with undergrowth | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.0 | | | | |

| | | | |
|---------------------------------|-------|---|------------|
| Spans | | Bridge Information Structure ID LR 8340 | |
| Geometry | Other | Piers | |
| Width | 37 | Number | 0 |
| Height | 8.7 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 28 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 28 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Left | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | | |
| Bank Full Depth | 2.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 28 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID LR 8405 | |
| Geometry | Box | Piers | |
| Width | 14 | Number | 0 |
| Height | 4.3 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 2.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|----------------------------|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 24 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 29 | Left | Medium to dense brush with scattered trees | Left | Lined or built-up channels |
| Bank Geom. Horiz. | 1 | Right | Medium to dense brush with scattered trees | Right | Concrete |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--------------------------------|----------------|------------------------------|
| Spans | | Bridge Information | | | |
| | | Structure ID LR 8455 | | | |
| Geometry | Box | Piers | | | |
| Width | 23 | Number | 0 | | |
| Height | 4 | Shape | | | |
| Height where arch begins | | Width at bottom | | | |
| | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 52 | | |
| Distance from low chord to deck | 2 | Shape of abutments | | | |
| Distance from deck to parapet | | Type of parapet | | | |
| Angle of skew of flow | 0 | | | | |
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 23 | Floodplain | | Left | Lined or built-up channels |
| Bank Geom. Horiz. | 1 | Left | Lawn, with buildings | Right | Gravel Bottom with Sides of: |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 23 | Left | Lawn, with trees and/or fences | Left | Lined or built-up channels |
| Bank Geom. Horiz. | 1 | Right | Lawn, with trees and/or fences | Right | Gravel Bottom with Sides of: |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID LR 8461

Angle of Skew

| | |
|------------------------|-------------|
| Geometry | Squash Pipe |
| Material | CM |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 1 inch |

Dimensions

| | |
|----------------|-----|
| Width | 3.5 |
| Bottom width | |
| Greatest width | |
| Diameter | |
| Height | 4.5 |

Barrel Characteristics

Headwall to embankment
 Headwall to pipe
 Stream to pipe

Length
 Cover to top of deck

Stream Channel Characteristics

Upstream

| | |
|-------------------|--|
| Bottom width (ft) | |
| Bank Geom. Horiz. | |
| Bank Geom. Vert. | |
| Bank Full Depth | |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Excavated or dredged channels |
| Right | Channel Not Maintained - Weeds and Brush |

Downstream

| | |
|-------------------|-------|
| Bottom width (ft) | 2 - 3 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 1 - 2 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Excavated or dredged channels |
| Right | Channel Not Maintained - Weeds and Brush |

Bridge Information
 Structure ID LR 8469

Spans

| | |
|--------------------------|-----|
| Geometry | Box |
| Width | 13 |
| Height | 2.5 |
| Height where arch begins | |

Piers

| | |
|------------------|----|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 17 |

| | |
|---------------------------------|-----|
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | |
| Angle of skew of flow | 40 |

Shape of abutments
 Type of parapet

Stream Channel Characteristics

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 21 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Medium to dense brush |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 21 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 21 |
| Height | 3.5 |
| Height where arch begins | |
| Distance from low chord to deck | 1 |
| Distance from deck to parapet | 4 |
| Angle of skew of flow | 30 |

| | |
|---------------------------|------------------|
| Bridge Information | |
| Structure ID LR 8470 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 18 |
| Shape of abutments | Vertical |
| Type of parapet | Concrete Barrier |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 33 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 32 |
| Downstream | |
| Bottom width (ft) | 33 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 32 |

| | | | |
|---------------------------------------|--|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | | |
| Left | Medium to dense brush | N Value | Left Streams in wide valleys |
| Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |

| | |
|---------------------------------|-------|
| Spans | |
| Geometry | Other |
| Width | 17 |
| Height | 3.5 |
| Height where arch begins | |
| Distance from low chord to deck | 4 |
| Distance from deck to parapet | n/a |
| Angle of skew of flow | 0 |

| | |
|---------------------------|----|
| Bridge Information | |
| Structure ID LR 8475 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 12 |
| Shape of abutments | |
| Type of parapet | |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 24 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 2 |
| Downstream | |
| Bottom width (ft) | 24 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---|----------|
| Spans | | Bridge Information Structure ID LR 8480 | |
| Geometry | Box | Piers | |
| Width | 20 | Number | 0 |
| Height | 4 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 66 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|------|---------------------------------------|--|----------------|---------------------------------------|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 12.5 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | Right | Impervious with structures, commercial | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---|----------|
| Spans | | Bridge Information Structure ID LR 8485 | |
| Geometry | Box | Piers | |
| Width | 8 | Number | 0 |
| Height | 2 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | 0 |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|------|---------------------------------------|--------------------------------|----------------|---------------------------------------|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 18.5 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | | |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18.5 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID LR 8510 | |
| Geometry | Box | Piers | |
| Width | 9 | Number | 0 |
| Height | 3 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Sloping |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 5 | Floodplain | | Left | Excavated or dredged channels |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Right | Earth - Straight and Uniform |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | | |
| Bank Full Depth | 2 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID MR 2120

| | | | |
|------------------------|---|-------------------------------|----|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Circular | Headwall to embankment | 10 |
| Material | RC | Headwall to pipe | 30 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 30 |
| Entrance Design | Socket end of pipe (grooved end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 40 |
| Width | | Cover to top of deck | 8 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

| | | | | | |
|---------------------------------------|----|-------------------|--|----------------|---------------------------------------|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bottom width (ft) | 19 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Horiz. | 2 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 13 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID MR 2210

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 50 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | 6 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|-----------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 4 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Dense willows or with undergrowth | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID MR 2310

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|----------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | HDPE | Headwall to pipe | |
| Entrance Type | | Stream to pipe | 0 |
| Entrance Design | | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 58 |
| Bottom width | | Cover to top of deck | 4 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | | Right | Medium to dense brush | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | | Right | Medium to dense brush | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID PR 11730

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|---|------------------------|----|
| Geometry | Arch | Headwall to embankment | 45 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 15 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|------|----------------------|----|
| Width | | Length | 54 |
| Bottom width | 17.5 | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 6.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 7 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID PR 11735

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 30 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 20 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|------|
| Width | | Length | 234 |
| Bottom width | | Cover to top of deck | 25++ |
| Greatest width | | | |
| Diameter | 8 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID SER 11505

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Arch | Headwall to embankment | 30 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 90 |
| Bottom width | 29 | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 9.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|------|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 25.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 34 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID SER 11525

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 115 |
| Bottom width | | Cover to top of deck | 9 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Lawn, with trees and/or fences | Left | |
| Bank Geom. Vert. | | Right | Lawn, with trees and/or fences | Right | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID SER 11536

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|------------------------------------|-------------------------------|--|----------------|--|
| Geometry | Arch | Headwall to embankment | | | |
| Material | CM | Headwall to pipe | | | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 | | |
| Entrance Design | Projected from fill (no headwall) | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | | Length | 55 | | |
| Bottom width | 31 | Cover to top of deck | 4 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 12.5 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 7.5 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 8.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID SER 11575

| Angle of Skew | | Barrel Characteristics | | | |
|---------------------------------------|---|-------------------------------|--|----------------|---|
| Geometry | Arch | Headwall to embankment | | 45 | |
| Material | RC | Headwall to pipe | | 0 | |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | | 45 | |
| Entrance Design | Square cut end of pipe (straight end) | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | | Length | 41 | | |
| Bottom width | 8.5 | Cover to top of deck | 2.5 | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 9 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | | | | |
| Bottom width (ft) | 8.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |
| Downstream | | | | | |
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID SER 11581

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Arch | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | | Length | 73 |
| Bottom width | 12 | Cover to top of deck | 6 |
| Greatest width | | | |
| Diameter | | | |
| Height | 8.5 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | | N Value | |
|-------------------|---|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 5 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 16 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 7 | | | | |

Culvert Information
Culvert ID SER 11582

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|-----|
| Geometry | Arch | Headwall to embankment | 60 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 60 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | | Length | 72 |
| Bottom width | 13 | Cover to top of deck | 9.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 6.5 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | | N Value | |
|-------------------|---|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 7 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|---|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 5 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID SER 11583

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Arch | Headwall to embankment | 45 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 45 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

| Dimensions | | | |
|-------------------|-----|----------------------|----|
| Width | | Length | 72 |
| Bottom width | 13 | Cover to top of deck | 6 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4.5 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | | N Value | |
|-------------------|---|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 5 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|---|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 5 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID SER 11590

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Box | Headwall to embankment | 30 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | 30 |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 0 | | |

| Dimensions | | | |
|-------------------|----|----------------------|------|
| Width | 10 | Length | 35.5 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | | N Value | |
|-------------------|------|-------------------|--|----------------|---|
| Bottom width (ft) | 13.5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID SER 11591

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 45 |
| Bottom width | | Cover to top of deck | 5 |
| Greatest width | | | |
| Diameter | 2.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID SER 11593

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 33 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 2.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|-------------------|----------------|---------------------------------------|
| Bottom width (ft) | 3 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2 | | | | |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID SR 7110 | |
| Geometry | Box | Piers | |
| Width | 11 | Number | 0 |
| Height | 7.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 39 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--------------------------------|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 18 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Left | Lawn, short grass | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID SR 7120 | |
| Geometry | Box | Piers | |
| Width | 15 | Number | 0 |
| Height | 7 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 1 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 17 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 7 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 19 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID SR 7210

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|--|----------------------|-----|
| Width | | Length | 50 |
| Bottom width | | Cover to top of deck | 6.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 1 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|-------------------------|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 1 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Almost no water flow. |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID SR 7310

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|--|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | |
| Entrance Design | End section conformed to slope | | |
| Depth barrel is filled | 1 | | |

Dimensions

| | | | |
|----------------|--|----------------------|--|
| Width | | Length | |
| Bottom width | | Cover to top of deck | |
| Greatest width | | | |
| Diameter | | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 8 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 7 | | | | |

Culvert Information
Culvert ID SR 7311

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 60 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|--|----------------------|-----|
| Width | | Length | 60 |
| Bottom width | | Cover to top of deck | 4.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 1 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 7 | | | | |

Bridge Information
 Structure ID SR 7320
Piers

Spans

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 0 |
| Width | 16 | Shape | |
| Height | 8 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 27 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|-------------------|----------------|---|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 2 | | | | |

Culvert Information
Culvert ID SR 7410

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Socket end of pipe (grooved end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 44 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 2.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID SR 7420

Spans

| | |
|--------------------------|------|
| Geometry | Arch |
| Width | 6 |
| Height | 7 |
| Height where arch begins | |

Piers

| | |
|------------------|----|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 34 |

| | |
|---------------------------------|----|
| Distance from low chord to deck | 9 |
| Distance from deck to parapet | .5 |
| Angle of skew of flow | 10 |

| | |
|--------------------|------------|
| Shape of abutments | Vertical |
| Type of parapet | Guide Rail |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|----------------------|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 7 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-------|---|------------|
| Spans | | Bridge Information Structure ID SR 7430 | |
| Geometry | Other | Piers | |
| Width | 8 | Number | 0 |
| Height | 5.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 24 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 16 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID SR 7435 | |
| Geometry | Box | Piers | |
| Width | 8 | Number | 0 |
| Height | 7 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 29 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 5 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 4? | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4? | | | | |

Culvert Information
Culvert ID SR 7510

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Box | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | 45 |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|------|
| Width | 4.5 | Length | 25.5 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4.5 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID SR 7520

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|-----------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe | Stream to pipe | 0 |
| Entrance Design | Mitered to conform to slope | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 45 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 4.5 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID SR 7530

Angle of Skew

| | |
|------------------------|--------------------------|
| Geometry | Circular |
| Material | RC |
| Entrance Type | Concrete Pipe |
| Entrance Design | Side slope tapered inlet |
| Depth barrel is filled | 0 |

Dimensions

| | |
|----------------|-----|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 3.5 |
| Height | |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 0 |

| | |
|----------------------|----|
| Length | 58 |
| Cover to top of deck | 4 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 7 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 7 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID SR 7611

Angle of Skew

| | |
|------------------------|---|
| Geometry | Circular |
| Material | RC |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls |
| Entrance Design | Square cut end of pipe (straight end) |
| Depth barrel is filled | 0 |

Dimensions

| | |
|----------------|-----|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 2.5 |
| Height | |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 0 |

| | |
|----------------------|----|
| Length | 67 |
| Cover to top of deck | 4 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 11 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 11 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID SR 7810

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 33 |
| Bottom width | | Cover to top of deck | .5 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 3 | | | | |

Bridge Information

Structure ID STR 6110

Spans

| | |
|---------------------------------|------|
| Geometry | Arch |
| Width | 41 |
| Height | 13 |
| Height where arch begins | 8 |
| Distance from low chord to deck | 4 |
| Distance from deck to parapet | 1 |
| Angle of skew of flow | 20 |

Piers

| | |
|--------------------|-------|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 18 |
| Shape of abutments | None |
| Type of parapet | Other |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 22 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 7 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 44 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 8 | | | | |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 76 |
| Height | 12 |
| Height where arch begins | |
| Distance from low chord to deck | 5 |
| Distance from deck to parapet | 4 |
| Angle of skew of flow | 30 |

| | |
|---------------------------|------------------|
| Bridge Information | |
| Structure ID STR 6130 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 37 |
| Shape of abutments | Vertical |
| Type of parapet | Concrete Barrier |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 22 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |
| Downstream | |
| Bottom width (ft) | 23 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 8 |

| | | | |
|---------------------------------------|--|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 30 |
| Height | 11 |
| Height where arch begins | |
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | 3 |
| Angle of skew of flow | 20 |

| | |
|---------------------------|------------------|
| Bridge Information | |
| Structure ID STR 6710 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 23 |
| Shape of abutments | None |
| Type of parapet | Concrete Barrier |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 32 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 2.5 |
| Downstream | |
| Bottom width (ft) | 28 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|--------------------------------|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Lawn, with trees and/or fences | N Value | Left Streams in wide valleys |
| Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Rifts or Pools |
| Floodplain | | | |
| Left | Light brush and trees | N Value | Left Streams in wide valleys |
| Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |

Spans

Geometry Box
 Width 20
 Height 7
 Height where arch begins

Distance from low chord to deck 1.5
 Distance from deck to parapet 3
 Angle of skew of flow 20

Upstream

Bottom width (ft) 13
 Bank Geom. Horiz. 3
 Bank Geom. Vert. 1
 Bank Full Depth 5

Downstream

Bottom width (ft) 12
 Bank Geom. Horiz. 3
 Bank Geom. Vert. 1
 Bank Full Depth 4.5

Bridge Information

Structure ID STR 6910

Piers

Number 0
 Shape
 Width at bottom
 Width
 Height at bottom
 Length 21
 Shape of abutments Vertical
 Type of parapet Concrete Barrier

Stream Channel Characteristics**Floodplain**

Left Medium to dense brush with scattered trees
 Right Lawn, with buildings

N Value

Left Streams in wide valleys
 Right Clean and Winding - More Stones

Floodplain

Left Medium to dense brush with scattered trees
 Right Medium to dense brush with scattered trees

N Value

Left Streams in wide valleys
 Right Clean and Winding - Some Stones and Weeds

Spans

Geometry Box
 Width
 Height
 Height where arch begins

Distance from low chord to deck
 Distance from deck to parapet
 Angle of skew of flow

Upstream

Bottom width (ft)
 Bank Geom. Horiz.
 Bank Geom. Vert. 1
 Bank Full Depth

Downstream

Bottom width (ft)
 Bank Geom. Horiz.
 Bank Geom. Vert. 1
 Bank Full Depth

Bridge Information

Structure ID STR 6925

Piers

Number 0
 Shape
 Width at bottom
 Width
 Height at bottom
 Length
 Shape of abutments None
 Type of parapet Guide Rail

Stream Channel Characteristics**Floodplain**

Left Medium to dense brush with scattered trees
 Right Medium to dense brush with scattered trees

N Value

Left Streams in wide valleys
 Right Clean and Winding - More Stones

Floodplain

Left Scattered brush, heavy weeds
 Right Light brush and trees

N Value

Left Streams in wide valleys
 Right Clean and Winding - Some Stones and Weeds

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| Geometry | Box | Structure ID | STR 6925A |
| Width | 28 | Piers | |
| Height | 11 | Number | 0 |
| Height where arch begins | | Shape | |
| | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 49 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 10 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID STR 6929

| | | | |
|------------------------|------------------------------------|-------------------------------|----|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 58 |
| Width | 7 | Cover to top of deck | 1 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

| | | | | | |
|---------------------------------------|----|-------------------|--|----------------|---|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bottom width (ft) | 8 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 2 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID STR 6944

| Angle of Skew | | Barrel Characteristics | | |
|--------------------------------|------------------------------------|------------------------|--|---|
| Geometry | Squash Pipe | Headwall to embankment | | |
| Material | CM | Headwall to pipe | | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 | |
| Entrance Design | Projected from fill (no headwall) | | | |
| Depth barrel is filled | 0 | | | |
| Dimensions | | | | |
| Width | 6 | Length | 28 | |
| Bottom width | | Cover to top of deck | 1.5 | |
| Greatest width | | | | |
| Diameter | | | | |
| Height | 3.5 | | | |
| Stream Channel Characteristics | | | | |
| Upstream | | | | |
| Bottom width (ft) | 5.5 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3 | | | |
| Downstream | | | | |
| Bottom width (ft) | 7.5 | Floodplain | | N Value |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - More Stones |
| Bank Full Depth | 4.5 | | | |

Culvert Information
Culvert ID STR 6945

| Angle of Skew | | Barrel Characteristics | | |
|--------------------------------|--|------------------------|--|---------------------------------------|
| Geometry | Circular | Headwall to embankment | | |
| Material | RC | Headwall to pipe | | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 | |
| Entrance Design | Square cut end of pipe (straight end) | | | |
| Depth barrel is filled | 0 | | | |
| Dimensions | | | | |
| Width | | Length | 31.5 | |
| Bottom width | | Cover to top of deck | 1 | |
| Greatest width | | | | |
| Diameter | 2 | | | |
| Height | | | | |
| Stream Channel Characteristics | | | | |
| Upstream | | | | |
| Bottom width (ft) | 3 | Floodplain | | N Value |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right Clean and Winding - More Stones |
| Bank Full Depth | 2.5 | | | |
| Downstream | | | | |
| Bottom width (ft) | 4 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - More Stones |
| Bank Full Depth | 3 | | | |

Culvert Information
Culvert ID STR 6955

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|---|
| Geometry | Circular | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 0 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

| Dimensions | | | |
|-------------------|-----|----------------------|-----|
| Width | | Length | 80 |
| Bottom width | | Cover to top of deck | 4.5 |
| Greatest width | | | |
| Diameter | 4.5 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | Floodplain | N Value |
|-------------------|-------------------|----------------|
| Bottom width (ft) | Left | Left |
| Bank Geom. Horiz. | Right | Right |
| Bank Geom. Vert. | | |
| Bank Full Depth | | |

Downstream

| | Floodplain | N Value |
|-------------------|-------------------|----------------|
| Bottom width (ft) | Left | Left |
| Bank Geom. Horiz. | Right | Right |
| Bank Geom. Vert. | | |
| Bank Full Depth | | |

Culvert Information
Culvert ID STR 6971

| Angle of Skew | | Barrel Characteristics | |
|------------------------|------------------------------------|-------------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

| Dimensions | | | |
|-------------------|---|----------------------|----|
| Width | | Length | 31 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | Floodplain | N Value |
|-------------------|---------------------------------------|---|
| Bottom width (ft) | Left Scattered brush, heavy weeds | Left Streams in wide valleys |
| Bank Geom. Horiz. | Right Scattered brush, heavy weeds | Right Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | |
| Bank Full Depth | 7 | |

Downstream

| | Floodplain | N Value |
|-------------------|--------------------------------|--|
| Bottom width (ft) | Left Lawn, with buildings | Left Streams in wide valleys |
| Bank Geom. Horiz. | Right Light brush and trees | Right Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | |
| Bank Full Depth | 8 | |

Culvert Information
Culvert ID STR 6972

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 60 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 3 | Length | 30 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID STR 6976

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|----------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | HDPE | Headwall to pipe | |
| Entrance Type | | Stream to pipe | 0 |
| Entrance Design | | | |
| Depth barrel is filled | 0.5 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 29 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 1.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 3 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID TR 3220

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|---|
| Geometry | Box | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | 0 |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 2 in. | | |

| Dimensions | | | |
|-------------------|---|----------------------|-----|
| Width | 7 | Length | 25 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|----------------------|----------------|---|
| Bottom width (ft) | 15 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|----------------------|----------------|---|
| Bottom width (ft) | 10 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID TR 3410

| Angle of Skew | | Barrel Characteristics | |
|------------------------|--|-------------------------------|----|
| Geometry | Squash Pipe | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 30 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0, 0.5 | | |

| Dimensions | | | |
|-------------------|-----|----------------------|-----|
| Width | 4.5 | Length | 28 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 12 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 14 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

Culvert Information
Culvert ID TR 3610

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Squash Pipe | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 3.5 | Length | 37 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5.5 | | | | |

Bridge Information
 Structure ID TR 3805
Piers

Spans

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 0 |
| Width | 18 | Shape | |
| Height | 2.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 0.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 18 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 18 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---|------|
| Spans | | Bridge Information Structure ID TR 3810 | |
| Geometry | Box | Piers | |
| Width | 12 | Number | 0 |
| Height | 5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 23 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | 0.5 | Type of parapet | None |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 15 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 15 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID TR 3825 | |
| Geometry | Box | Piers | |
| Width | 18 | Number | 0 |
| Height | 5.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 25 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 21 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 16 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID TR 3830

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|-------------|
| Geometry | Elliptical | Headwall to embankment | 60 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | see comment |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | 6 | Length | 27 |
| Bottom width | | Cover to top of deck | 0.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 19 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 31 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID TR 3831

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 3 | Length | 40 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 14 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID TR 3840

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 80 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|---------------------|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|---|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID TR 3855

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|----------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | HDPE | Headwall to pipe | |
| Entrance Type | | Stream to pipe | 20 |
| Entrance Design | | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 21 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 14 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID TR 3870

Angle of Skew

| | |
|------------------------|----------|
| Geometry | Circular |
| Material | HDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

Dimensions

| | |
|----------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 2 |
| Height | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 30 |

| | |
|----------------------|-----|
| Length | 36 |
| Cover to top of deck | 1.5 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID TR 3880

Angle of Skew

| | |
|------------------------|------------------------------------|
| Geometry | Squash Pipe |
| Material | CM |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch |
| Entrance Design | Projected from fill (no headwall) |
| Depth barrel is filled | 0 |

Dimensions

| | |
|----------------|-----|
| Width | 2 |
| Bottom width | |
| Greatest width | |
| Diameter | |
| Height | 1.5 |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 0 |

| | |
|----------------------|-----|
| Length | 28 |
| Cover to top of deck | 1.5 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 9 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---------------------------------------|
| Left | Streams in wide valleys |
| Right | Sluggish Reaches - Weedy - Deep Pools |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 10 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|--|
| Left | Lawn, with trees and/or fences |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---------------------------------------|
| Left | Streams in wide valleys |
| Right | Sluggish Reaches - Weedy - Deep Pools |

Culvert Information
Culvert ID TR 3891

| Angle of Skew | | Barrel Characteristics | |
|------------------------|------------------------------------|-------------------------------|-------|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0; 90 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

| Dimensions | | | |
|-------------------|---|----------------------|----|
| Width | | Length | 30 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | N Value |
|-------------------|-----|--|--|
| Bottom width (ft) | 8 | Left Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right Lawn, with trees and/or fences | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 4.5 | | |

Downstream

| | | Floodplain | N Value |
|-------------------|----|---|---|
| Bottom width (ft) | 11 | Left Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right Medium to dense brush with scattered trees | Right Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 6 | | |

Culvert Information
Culvert ID TRR 5955

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 45 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 45 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

| Dimensions | | | |
|-------------------|---|----------------------|----|
| Width | 5 | Length | 68 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | N Value |
|-------------------|----|-----------------------------|--|
| Bottom width (ft) | 10 | Left Paved or impervious | Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right Lawn, short grass | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 5 | | |

Downstream

| | | Floodplain | N Value |
|-------------------|----|---|--|
| Bottom width (ft) | 16 | Left Lawn, short grass | Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right Lawn, with trees and/or fences | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 4 | | |

Culvert Information
Culvert ID TRR 5960

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Side or slope tapered inlet |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 9 | Length | 46 |
| Bottom width | | Cover to top of deck | 4 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.5 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 45 |
| Headwall to pipe | 0 |
| Stream to pipe | 45 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 9 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|---------------------|
| Left | Lawn, short grass |
| Right | Paved or impervious |

N Value

| | |
|-------|---------------------------------------|
| Left | Streams in wide valleys |
| Right | Sluggish Reaches - Weedy - Deep Pools |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 4 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|-------------------|
| Left | Lawn, short grass |
| Right | Lawn, short grass |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID TSR 10910

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|----|----------------------|-----|
| Width | 29 | Length | 52 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 30 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 48 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Lawn, with trees and/or fences |
| Right | Lawn, with trees and/or fences |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 40 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Lawn, with trees and/or fences |
| Right | Lawn, with trees and/or fences |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Culvert Information
Culvert ID TSR 11010

Angle of Skew

Geometry Box
Material RC
Entrance Type Wingwalls at 30 to 75 degrees to Barrel
Entrance Design Square-edge at crown
Depth barrel is filled 0

Dimensions

Width 12
Bottom width
Greatest width
Diameter
Height 5

Barrel Characteristics

Headwall to embankment
Headwall to pipe
Stream to pipe 80

Length 52
Cover to top of deck 1

Stream Channel Characteristics

Upstream

Bottom width (ft) 19
Bank Geom. Horiz. 2
Bank Geom. Vert. 1
Bank Full Depth 3

Floodplain

Left Light brush and trees
Right Light brush and trees

N Value

Left Streams in wide valleys
Right Clean and Straight - No Riffs or Pools

Downstream

Bottom width (ft) 14
Bank Geom. Horiz. 2
Bank Geom. Vert. 1
Bank Full Depth 5

Floodplain

Left Lawn, short grass
Right Light brush and trees

N Value

Left Streams in wide valleys
Right Clean and Straight - No Riffs or Pools

Culvert Information
Culvert ID TSR 11025

Angle of Skew

Geometry Box
Material RC
Entrance Type Wingwalls at 30 to 75 degrees to Barrel
Entrance Design Square-edge at crown
Depth barrel is filled 0

Dimensions

Width 61
Bottom width
Greatest width
Diameter
Height 5

Barrel Characteristics

Headwall to embankment
Headwall to pipe
Stream to pipe 0

Length 55
Cover to top of deck 2

Stream Channel Characteristics

Upstream

Bottom width (ft) 26
Bank Geom. Horiz. 2
Bank Geom. Vert. 1
Bank Full Depth 4

Floodplain

Left Medium to dense brush
Right Medium to dense brush

N Value

Left Streams in wide valleys
Right Clean and Straight - No Riffs or Pools

Downstream

Bottom width (ft) 19
Bank Geom. Horiz. 2
Bank Geom. Vert. 1
Bank Full Depth 3

Floodplain

Left Medium to dense brush with scattered trees
Right Medium to dense brush

N Value

Left Streams in wide valleys
Right Clean and Straight - No Riffs or Pools

Culvert Information
Culvert ID TSR 11050

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Box | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | 0 |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 11 | Length | 38 |
| Bottom width | | Cover to top of deck | 0 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|-----------------|----------------|--|
| Bottom width (ft) | 16 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Cultivated area | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 15 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID TSR 11060

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Box | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | 30 |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 15 | Length | 32 |
| Bottom width | | Cover to top of deck | 0 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 20 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

Downstream

| | | Floodplain | | N Value | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 13 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID TSR 11070

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|---|------------------------|----|
| Geometry | Circular | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 30 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 50 |
| Bottom width | | Cover to top of deck | 4 |
| Greatest width | | | |
| Diameter | 7 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|--|
| Bottom width (ft) | 14 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID TSR 11110

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 45 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 1.5 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 4 | Length | 42 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2.5 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 23 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID TSR 11130

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Elliptical | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 4 | Length | 38 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 20 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 24 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID wr 5110

Spans

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Piers | |
| Width | 24 | Number | 0 |
| Height | 8.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 54 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 40 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 22 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 27 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID WR 5111

Barrel Characteristics

Angle of Skew

| | | | |
|-----------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Square cut end of pipe (straight end) | | |

Depth barrel is filled

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 206 |
| Bottom width | | Cover to top of deck | .5 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID wr 5310

Spans

| | | | |
|---------------------------------|-----|--------------------|----------|
| Geometry | Box | Number | 0 |
| Width | 21 | Shape | |
| Height | 10 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 13 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Other |
| Angle of skew of flow | 20 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 19 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 19 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID WR 5510

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 30 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 4 | Length | 35 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|------|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 15.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Bridge Information

Structure ID wr 5610

Spans

| | | | |
|---------------------------------|-----|--------------------|------------|
| Geometry | Box | Number | 0 |
| Width | 18 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | 0 | Width | |
| | | Height at bottom | |
| | | Length | 27 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Culvert Information
Culvert ID WR 5615

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Circular | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 40 |
| Bottom width | | Cover to top of deck | .5 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID WR 5620

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|----------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | HDPE | Headwall to pipe | |
| Entrance Type | | Stream to pipe | 0 |
| Entrance Design | | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 51 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 3.5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 1.5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 2 | | | | |

Culvert Information
Culvert ID WR 5705

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 45 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 1 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 46 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID WR 5730

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Side slope tapered inlet | | |
| Depth barrel is filled | 1 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 41 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 3.5 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID WR 5750

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 40 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 4 | Length | 50 |
| Bottom width | | Cover to top of deck | .5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID WR 5760

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 50 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID WR 5780

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 50 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | 2.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID WR 5785

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 3.5 | Length | 41 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 9 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 2.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Culvert Information
Culvert ID WR 5795

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 1 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 5.5 | Length | 41 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID WR 5810

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 45 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 48 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | 2.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | N/A | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 0 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID WR 5820

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|-----|
| Geometry | Box | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | N/A |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 2.5 | Length | 50 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|-------------------|----------------|---|
| Bottom width (ft) | | Floodplain | | N Value | |
| | | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 0 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 3 | Floodplain | | N Value | |
| | | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Pasture or field with no brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 1 | | | | |

Bridge Information

Structure ID YB 1510

Piers

Spans

| | | | |
|---------------------------------|-----|--------------------|-------|
| Geometry | Box | Number | 0 |
| Width | 19 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 14 |
| Distance from low chord to deck | 1.5 | Shape of abutments | |
| Distance from deck to parapet | 0.5 | Type of parapet | Other |
| Angle of skew of flow | 10 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| | | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Spans

| | |
|---------------------------------|------|
| Geometry | Arch |
| Width | 92 |
| Height | 6 |
| Height where arch begins | 4 |
| Distance from low chord to deck | 2 |
| Distance from deck to parapet | 1 |
| Angle of skew of flow | 30 |

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 72 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 72 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 2.5 |

Bridge Information

Structure ID YB 1520

Piers

| | |
|--------------------|--------------------------------------|
| Number | 1 |
| Shape | Triangular nose with 30 degree angle |
| Width at bottom | 6 |
| Width | 4 |
| Height at bottom | 2 |
| Length | 16 |
| Shape of abutments | |
| Type of parapet | Other |

Stream Channel Characteristics**Floodplain**

| | |
|-------|-----------------------|
| Left | Light brush and trees |
| Right | Lawn, with buildings |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Floodplain

| | |
|-------|--------------------------------|
| Left | Lawn, with trees and/or fences |
| Right | Lawn, with buildings |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Culvert Information
Culvert ID YB 1810**Angle of Skew**

| | |
|------------------------|--------------------------|
| Geometry | Circular |
| Material | RC |
| Entrance Type | Concrete Pipe |
| Entrance Design | Side slope tapered inlet |
| Depth barrel is filled | 0 |

Dimensions

| | |
|----------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 2 |
| Height | |

Barrel Characteristics

| | |
|------------------------|---|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 0 |

| | |
|----------------------|----|
| Length | 42 |
| Cover to top of deck | 1 |

Stream Channel Characteristics**Upstream**

| | |
|-------------------|---|
| Bottom width (ft) | 5 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|----------------------|
| Left | Lawn, with buildings |
| Right | Lawn, with buildings |

N Value

| | |
|-------|-------------------------------|
| Left | Excavated or dredged channels |
| Right | Earth - Straight and Uniform |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 10 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Pasture or field with no brush |
| Right | Lawn, with buildings |

N Value

| | |
|-------|-------------------------------|
| Left | Excavated or dredged channels |
| Right | Earth - Straight and Uniform |

Culvert Information
Culvert ID YB 1820

Barrel Characteristics

Angle of Skew

| | |
|------------------------|----------|
| Geometry | Circular |
| Material | CI |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |

| | |
|------------------------|---|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 0 |

Dimensions

| | |
|----------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 2 |
| Height | |

| | |
|----------------------|----|
| Length | 45 |
| Cover to top of deck | 14 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|--|
| Bottom width (ft) | |
| Bank Geom. Horiz. | |
| Bank Geom. Vert. | |
| Bank Full Depth | |

Floodplain

| | |
|-------|--|
| Left | |
| Right | |

N Value

| | |
|-------|--|
| Left | |
| Right | |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Scattered brush, heavy weeds |

N Value

| | |
|-------|--|
| Left | Excavated or dredged channels |
| Right | Channel Not Maintained - Weeds and Brush |

Culvert Information
Culvert ID YB 1830

Barrel Characteristics

Angle of Skew

| | |
|------------------------|--|
| Geometry | Circular |
| Material | RC |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) |
| Entrance Design | Socket end of pipe (flared end) |
| Depth barrel is filled | 0 |

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 30 |

Dimensions

| | |
|----------------|---|
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 3 |
| Height | |

| | |
|----------------------|-----|
| Length | 48 |
| Cover to top of deck | 0.5 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|---|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Lawn, with buildings |
| Right | Lawn, with trees and/or fences |

N Value

| | |
|-------|--|
| Left | Excavated or dredged channels |
| Right | Channel Not Maintained - Weeds and Brush |

Downstream

| | |
|-------------------|---|
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Pasture or field with no brush |
| Right | Pasture or field with no brush |

N Value

| | |
|-------|--|
| Left | Excavated or dredged channels |
| Right | Channel Not Maintained - Weeds and Brush |

Culvert Information
Culvert ID YB 1842

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 45 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0.5 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 40 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 1.5 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Excavated or dredged channels |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Channel Not Maintained - Weeds and Brush |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Excavated or dredged channels |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Channel Not Maintained - Weeds and Brush |
| Bank Full Depth | 3 | | | | |

Bridge Information
 Structure ID YB 1855

Spans

| | |
|---------------------------------|-----|
| Geometry | Box |
| Width | 47 |
| Height | 5 |
| Height where arch begins | |
| Distance from low chord to deck | 2 |
| Distance from deck to parapet | 0.5 |
| Angle of skew of flow | 45 |

Piers

| | |
|--------------------|------------|
| Number | 1 |
| Shape | Circular |
| Width at bottom | 5 |
| Width | 5 |
| Height at bottom | |
| Length | 15 |
| Shape of abutments | |
| Type of parapet | Guide Rail |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 42 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 42 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID YB 1856

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Box | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | 45 |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | 4 | Length | 51 |
| Bottom width | | Cover to top of deck | 0.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|---------------------|----------------|---------------------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|---------------------|----------------|---------------------------------------|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | | | | | |

Bridge Information

Structure ID YB 1865

Spans

| | | | |
|---------------------------------|-----|--------------------|-----------------------------------|
| Geometry | Box | Number | 2 |
| Width | 132 | Shape | Elongated with semi-circular ends |
| Height | 8 | Width at bottom | 7 |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | 0.5 |
| | | Length | 45 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 35 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 60 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID YB 1910

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|------|----------------------|-----|
| Width | 13.5 | Length | 52 |
| Bottom width | | Cover to top of deck | 0.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 30 |
| Headwall to pipe | 0 |
| Stream to pipe | 30 |

Stream Channel Characteristics

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 15 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Scattered brush, heavy weeds |

N Value

| | |
|-------|-------------------------|
| Left | Streams in wide valleys |
| Right | |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 18 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Scattered brush, heavy weeds |

N Value

| | |
|-------|-------------------------|
| Left | Streams in wide valleys |
| Right | |

Spans

| | |
|---------------------------------|-----|
| Geometry | Box |
| Width | 120 |
| Height | 10 |
| Height where arch begins | |
| Distance from low chord to deck | 2 |
| Distance from deck to parapet | |
| Angle of skew of flow | 0 |

Bridge Information

Structure ID YB 3010

Piers

| | |
|------------------|----|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 18 |

| | |
|--------------------|---------|
| Shape of abutments | Sloping |
| Type of parapet | Other |

Stream Channel Characteristics

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 80 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|--|
| Left | Scattered brush, heavy weeds |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 80 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Lawn, with buildings |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 3011 | |
| Geometry | Box | Piers | |
| Width | 20 | Number | 0 |
| Height | 3 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 22 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 1 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | |
|-------------------|----|---------------------------------------|--------------------------------|
| Upstream | | Stream Channel Characteristics | |
| Bottom width (ft) | | Floodplain | N Value |
| Bank Geom. Horiz. | | Left | Medium to dense brush |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush |
| Bank Full Depth | | | Left Streams in wide valleys |
| | | | Right No water. |
| Downstream | | Floodplain | N Value |
| Bottom width (ft) | 27 | Left | Lawn, with trees and/or fences |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences |
| Bank Geom. Vert. | 1 | | Left Streams in wide valleys |
| Bank Full Depth | 3 | | Right No water. |

| | | | |
|---------------------------------|-----|---------------------------|--------------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 3025 | |
| Geometry | Box | Piers | |
| Width | 101 | Number | 1 |
| Height | 8 | Shape | Triangular nose with 60 degree angle |
| Height where arch begins | | Width at bottom | 7 |
| | | Width | 7 |
| | | Height at bottom | 0 |
| | | Length | 18 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | 2.5 | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

| | | | |
|-------------------|-----|---------------------------------------|--|
| Upstream | | Stream Channel Characteristics | |
| Bottom width (ft) | 82 | Floodplain | N Value |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings |
| Bank Full Depth | 7 | | Left Streams in wide valleys |
| | | | Right Clean and Straight - Some Stones and Weeds |
| Downstream | | Floodplain | N Value |
| Bottom width (ft) | 71 | Left | Lawn, with buildings |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings |
| Bank Geom. Vert. | 1 | | Left Streams in wide valleys |
| Bank Full Depth | 4.5 | | Right Clean and Straight - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---|----------|
| Spans | | Bridge Information Structure ID YB 3030 | |
| Geometry | Box | Piers | |
| Width | 13 | Number | 0 |
| Height | 4 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 23 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2 | Type of parapet | Other |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--------------------------------|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 14 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|---------------------------------|----------|---|-----------------------------------|
| Spans | | Bridge Information Structure ID YB 3035 | |
| Geometry | Box | Piers | |
| Width | 205 | Number | 2 |
| Height | 11 | Shape | Elongated with semi-circular ends |
| Height where arch begins | | Width at bottom | 3 |
| | | Width | 3 |
| | | Height at bottom | 0 |
| | | Length | 36 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10/45/45 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 195 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 185 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|---------------------------------|-------|---------------------------|-------|
| Spans | | Bridge Information | |
| | | Structure ID YB 3040 | |
| | | Piers | |
| Geometry | Other | Number | 0 |
| Width | 85 | Shape | |
| Height | 7.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 14 |
| Distance from low chord to deck | 0.5 | Shape of abutments | None |
| Distance from deck to parapet | 0 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | | |
| | | Floodplain | | N Value | |
| Bottom width (ft) | 70 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 70 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | |
|----------------------------|--|-------------------------------|----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 3041 | | | |
| Angle of Skew | | | |
| Geometry | Circular | Headwall to embankment | 10 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0.5 | | |
| Dimensions | | | |
| Width | | Length | 30 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

| | | | | | |
|---------------------------------------|-----|-------------------|------------------------------|----------------|---------------------------------------|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | | Left | |
| Bottom width (ft) | 13 | Right | Lawn, short grass | Right | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | |
|---------------------------------|------|
| Spans | |
| Geometry | Arch |
| Width | 128 |
| Height | 12 |
| Height where arch begins | 2 |
| Distance from low chord to deck | 6 |
| Distance from deck to parapet | 2 |
| Angle of skew of flow | 60 |

| | |
|---------------------------|--------------------------------------|
| Bridge Information | |
| Structure ID YB 4050 | |
| Piers | |
| Number | 2 |
| Shape | Triangular nose with 60 degree angle |
| Width at bottom | 10 |
| Width | 8 |
| Height at bottom | 2 |
| Length | 21 |
| Shape of abutments | |
| Type of parapet | Other |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 100 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | N Value | |
| Floodplain | | Left | Streams in wide valleys |
| Left | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |
| Right | Medium to dense brush with scattered trees | | |

| | |
|-------------------|-----|
| Downstream | |
| Bottom width (ft) | 100 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

| | | | |
|-------------------|--|-------|--|
| Floodplain | | Left | Streams in wide valleys |
| Left | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |
| Right | Medium to dense brush with scattered trees | | |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 19 |
| Height | 5.5 |
| Height where arch begins | |
| Distance from low chord to deck | 1 |
| Distance from deck to parapet | 0.5 |
| Angle of skew of flow | 0 |

| | |
|---------------------------|----------|
| Bridge Information | |
| Structure ID YB 4051 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 14 |
| Shape of abutments | Vertical |
| Type of parapet | Other |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 20 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |

| | | | |
|---------------------------------------|---------------------|----------------|---|
| Stream Channel Characteristics | | N Value | |
| Floodplain | | Left | Streams in wide valleys |
| Left | Lawn, short grass | Right | Clean and Winding - Some Pools and Shoals |
| Right | Paved or impervious | | |

| | |
|-------------------|----|
| Downstream | |
| Bottom width (ft) | 24 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

| | | | |
|-------------------|---------------------|-------|---|
| Floodplain | | Left | Streams in wide valleys |
| Left | Lawn, short grass | Right | Clean and Winding - Some Pools and Shoals |
| Right | Paved or impervious | | |

| | | | |
|---------------------------------|------|---------------------------|-------|
| Spans | | Bridge Information | |
| | | Structure ID YB 4052 | |
| | | Piers | |
| Geometry | Arch | Number | 0 |
| Width | 24 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | 2 | Width | |
| | | Height at bottom | |
| | | Length | 18 |
| Distance from low chord to deck | 0.5 | Shape of abutments | 0 |
| Distance from deck to parapet | 2.5 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Left | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Impervious with structures, commercial | | |
| Bank Full Depth | | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 26 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------|---|-------------------------------|----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 4053 | | | |
| Angle of Skew | | | |
| Geometry | Arch | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 0 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | | Length | 16 |
| Bottom width | 7 | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 7 | | |

| | | | | | |
|---------------------------------------|-----|-------------------|---------------------|----------------|--|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | | Left | |
| Bottom width (ft) | 12 | Right | | Right | |
| Bank Geom. Horiz. | 2 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 20 | Left | Lawn, short grass | Left | |
| Bank Geom. Horiz. | 2 | Right | Paved or impervious | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 4110 | |
| Geometry | Box | Piers | |
| Width | 8 | Number | 0 |
| Height | 8 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 25 |
| Distance from low chord to deck | 1 | Shape of abutments | |
| Distance from deck to parapet | 2 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | |
|-------------------|----|---------------------------------------|--|--|
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | | Floodplain | | N Value |
| Bank Geom. Horiz. | | Left | | Left |
| Bank Geom. Vert. | | Right | | Right |
| Bank Full Depth | | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 22 | Left | Scattered brush, heavy weeds | Left Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Impervious with structures, commercial | Right Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5 | | | |

| | | | | |
|---------------------------------|-----|---------------------------------------|--|--|
| Spans | | Bridge Information | | |
| | | Structure ID YB 4111 | | |
| Geometry | Box | Piers | | |
| Width | 19 | Number | 0 | |
| Height | 3 | Shape | | |
| Height where arch begins | | Width at bottom | | |
| | | Width | | |
| | | Height at bottom | | |
| | | Length | 45 | |
| Distance from low chord to deck | 2 | Shape of abutments | None | |
| Distance from deck to parapet | 0.5 | Type of parapet | Other | |
| Angle of skew of flow | 0 | | | |
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | 34 | Floodplain | | N Value |
| Bank Geom. Horiz. | 4 | Left | Impervious with structures, commercial | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Impervious with structures, commercial | Right Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 3.5 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 24 | Left | Impervious with structures, commercial | Left Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Right | Impervious with structures, commercial | Right Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 3 | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 4112 | |
| Geometry | Box | Piers | |
| Width | 16 | Number | 0 |
| Height | 3 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 50 |
| Distance from low chord to deck | 1 | Shape of abutments | Sloping |
| Distance from deck to parapet | 2 | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|-------------------------|
| Upstream | | Stream Channel Characteristics | | | |
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Impervious with structures, commercial | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | No flow. |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 5 | Left | Impervious with structures, commercial | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Impervious with structures, commercial | Right | Standing water. |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 1.5 | | | | |

| | | | |
|----------------------------|------------------------------------|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 4125 | | | |
| Angle of Skew | | | |
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0.5 | | |
| Dimensions | | Length | 34 |
| Width | | Cover to top of deck | 1.5 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

| | | | | | |
|---------------------------------------|----|-------------------|--------------------------------|----------------|---|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bottom width (ft) | 14 | Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 2 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 16 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-------|
| Spans | | Bridge Information | |
| | | Structure ID YB 4130 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 16 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 26 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | 3.5 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|----|---------------------------------------|----------------------|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 11 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 1 | Left | Lawn, short grass | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 13 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | |
|----------------------------|--|-------------------------------|----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 4131 | | | |
| Angle of Skew | | | |
| Geometry | Elliptical | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 45 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 7 | Length | 32 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

| | | | | | |
|---------------------------------------|----|-------------------|--------------------------------|----------------|--|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bottom width (ft) | 28 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Horiz. | 4 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 24 | Left | Cultivated area | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Pasture or field with no brush | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-----------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 4136 | |
| | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 98 | Shape | Elongated with semi-circular ends |
| Height | 7.5 | Width at bottom | 6 |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | 1 |
| | | Length | 29 |
| Distance from low chord to deck | 2.5 | Shape of abutments | None |
| Distance from deck to parapet | 0.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | | |
| Bottom width (ft) | 95 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 130 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|----------------------------|---|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 4210 | | | |
| Angle of Skew | | | |
| Geometry | Arch | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 30 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 30 |
| Entrance Design | Socket end of pipe (grooved end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 24 |
| Width | | Cover to top of deck | 0.5 |
| Bottom width | 11 | | |
| Greatest width | | | |
| Diameter | | | |
| Height | 5.5 | | |

| | | | | | |
|---------------------------------------|----|-------------------|--|----------------|-------------------------|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bottom width (ft) | 11 | Right | Lawn, with buildings | Right | |
| Bank Geom. Horiz. | 3 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID YB 4325

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 30 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0.5 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 61 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|-------------------------|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Full Depth | 6.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|-------------------------|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | N2 | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID YB 4330

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 1 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 67 |
| Bottom width | | Cover to top of deck | 4.5 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|-------------------------|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|-----------------------|----------------|-------------------------|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID YB 4335

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 4.5 | Length | 80 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|-------------------------|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|-------------------------|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID YB 4356

Spans

| | |
|---------------------------------|-----|
| Geometry | Box |
| Width | 116 |
| Height | 6 |
| Height where arch begins | |
| Distance from low chord to deck | 7 |
| Distance from deck to parapet | 0 |
| Angle of skew of flow | 30 |

Piers

| | |
|--------------------|--------------------------------------|
| Number | 2 |
| Shape | Triangular nose with 60 degree angle |
| Width at bottom | 6.5 |
| Width | 6.5 |
| Height at bottom | |
| Length | 39 |
| Shape of abutments | None |
| Type of parapet | Other |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 75 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 75 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|--------------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 4360 | |
| Geometry | Box | Piers | |
| Width | 91 | Number | 1 |
| Height | 9 | Shape | Triangular nose with 60 degree angle |
| Height where arch begins | | Width at bottom | 3 |
| | | Width | 3 |
| | | Height at bottom | |
| | | Length | 28 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|-----------------------|----------------|--|
| Upstream | | Stream Channel Characteristics | | | |
| Bottom width (ft) | 92 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 75 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Paved or impervious | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | | | |
|---------------------------------------|------------------------------------|-------------------------------|--|----------------|---|
| Culvert Information | | | | | |
| Culvert ID YB 4410 | | Barrel Characteristics | | | |
| Angle of Skew | | | | | |
| Geometry | Elliptical | Headwall to embankment | | | |
| Material | CM | Headwall to pipe | | | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | | 45 | |
| Entrance Design | Projected from fill (no headwall) | | | | |
| Depth barrel is filled | 0 | | | | |
| Dimensions | | | | | |
| Width | 3 | Length | 16 | | |
| Bottom width | | Cover to top of deck | | | |
| Greatest width | | | | | |
| Diameter | | | | | |
| Height | 2 | | | | |
| Stream Channel Characteristics | | | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 6 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | |
|---------------------------------|------|
| Spans | |
| Geometry | Box |
| Width | 29.5 |
| Height | 5 |
| Height where arch begins | |
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | |
| Angle of skew of flow | 10 |

| | |
|---------------------------|--------------------------------------|
| Bridge Information | |
| Structure ID YB 4430 | |
| Piers | |
| Number | 1 |
| Shape | Triangular nose with 60 degree angle |
| Width at bottom | 3.5 |
| Width | 1.5 |
| Height at bottom | 2 |
| Length | 16.5 |
| Shape of abutments | None |
| Type of parapet | Guide Rail |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 27 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

| | | | |
|---------------------------------------|-----------------------|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Medium to dense brush | Left | Streams in wide valleys |
| Right | Medium to dense brush | Right | Clean and Winding - Some Pools and Shoals |

| | |
|-------------------|-----|
| Downstream | |
| Bottom width (ft) | 16 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

| | | | |
|-------------------|-----------------------|----------------|--|
| Floodplain | | N Value | |
| Left | Paved or impervious | Left | Streams in wide valleys |
| Right | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |

| | |
|---------------------------------|------|
| Spans | |
| Geometry | Arch |
| Width | 113 |
| Height | 9.5 |
| Height where arch begins | |
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | 3 |
| Angle of skew of flow | 30 |

| | |
|---------------------------|--------------------------------------|
| Bridge Information | |
| Structure ID YB 4435 | |
| Piers | |
| Number | 1 |
| Shape | Triangular nose with 60 degree angle |
| Width at bottom | 5 |
| Width | 5 |
| Height at bottom | |
| Length | 16 |
| Shape of abutments | Vertical |
| Type of parapet | Other |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 68 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |

| | | | |
|---------------------------------------|-----------------------|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Medium to dense brush | Left | Streams in wide valleys |
| Right | Medium to dense brush | Right | Clean and Straight - No Riffs or Pools |

| | |
|-------------------|-----|
| Downstream | |
| Bottom width (ft) | 85 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4.5 |

| | | | |
|-------------------|--|----------------|--|
| Floodplain | | N Value | |
| Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Right | Scattered brush, heavy weeds | Right | Clean and Straight - No Riffs or Pools |

| | | | |
|---------------------------------|------|---|------------|
| Spans | | Bridge Information Structure ID YB 4510 | |
| Geometry | Box | Piers | |
| Width | 22.5 | Number | 0 |
| Height | 8.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 37.5 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 60 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 13 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |
| Downstream | |
| Bottom width (ft) | 18 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Lawn, short grass | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - Some Stones and Weeds |
| Floodplain | | N Value | |
| Left | Paved or impervious | Left | Streams in wide valleys |
| Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |

| | | | |
|---------------------------------|-----|---|------|
| Spans | | Bridge Information Structure ID YB 4520 | |
| Geometry | Box | Piers | |
| Width | 14 | Number | 0 |
| Height | 4 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 15.5 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | None |
| Angle of skew of flow | 20 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 7.5 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |
| Downstream | |
| Bottom width (ft) | 8 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|--|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | N Value | |
| Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 4525 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 12 | Shape | |
| Height | 4.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 33 |
| Distance from low chord to deck | 2 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|--|---------------------------------------|--------------------------------|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Left | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | | Right | Lawn, with trees and/or fences | | |
| Bank Full Depth | | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | | | | | |
| Bank Full Depth | | | | | |

| | | | |
|---------------------------------|-----|---------------------------|--------------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 4610 | |
| | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 77 | Shape | Triangular nose with 60 degree angle |
| Height | 8 | Width at bottom | 5 |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | 2.5 |
| | | Length | 19 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--------------------------------|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 71 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Left | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | | |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 85 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 102 |
| Height | 9 |
| Height where arch begins | |
| Distance from low chord to deck | 2.5 |
| Distance from deck to parapet | 3 |
| Angle of skew of flow | 20 |

| | |
|---------------------------|--------------------------------------|
| Bridge Information | |
| Structure ID YB 4725 | |
| Piers | |
| Number | 2 |
| Shape | Triangular nose with 60 degree angle |
| Width at bottom | 3 |
| Width | 3 |
| Height at bottom | |
| Length | 29 |
| Shape of abutments | None |
| Type of parapet | Other |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 102 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Right | Lawn, with buildings | Right | Clean and Straight - No Riffs or Pools |

| | |
|-------------------|--|
| Downstream | |
| Bottom width (ft) | |
| Bank Geom. Horiz. | |
| Bank Geom. Vert. | |
| Bank Full Depth | |

| | | | |
|-------------------|--|----------------|--|
| Floodplain | | N Value | |
| Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 22 |
| Height | 5 |
| Height where arch begins | |
| Distance from low chord to deck | 1 |
| Distance from deck to parapet | 0 |
| Angle of skew of flow | 0 |

| | |
|---------------------------|------------|
| Bridge Information | |
| Structure ID YB 4726 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 22 |
| Shape of abutments | Vertical |
| Type of parapet | Guide Rail |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 22 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|-------------------|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Lawn, short grass | Left | Streams in wide valleys |
| Right | Lawn, short grass | Right | Clean and Straight - No Riffs or Pools |

| | |
|-------------------|----|
| Downstream | |
| Bottom width (ft) | 22 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|-------------------|-------------------|----------------|--|
| Floodplain | | N Value | |
| Left | Lawn, short grass | Left | Streams in wide valleys |
| Right | Lawn, short grass | Right | Clean and Straight - No Riffs or Pools |

Culvert Information
Culvert ID YB 5905

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 10 to 25 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 13 | Length | 74 |
| Bottom width | | Cover to top of deck | 6.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 6.5 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 0 |
| Headwall to pipe | 0 |
| Stream to pipe | 60 |

Stream Channel Characteristics
Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 14 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - No Rifts or Pools |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 9 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - No Rifts or Pools |

Bridge Information

Structure ID YB 5905

Spans

| | |
|--------------------------|-----|
| Geometry | Box |
| Width | |
| Height | |
| Height where arch begins | |

Piers

| | |
|------------------|--|
| Number | |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | |

| | |
|---------------------------------|--|
| Distance from low chord to deck | |
| Distance from deck to parapet | |
| Angle of skew of flow | |

| | |
|--------------------|--|
| Shape of abutments | |
| Type of parapet | |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 14 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - No Rifts or Pools |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 9 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - No Rifts or Pools |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 5910 | |
| Geometry | Box | Piers | |
| Width | 22 | Number | 0 |
| Height | 4.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 48 |
| Distance from low chord to deck | 0.5 | Shape of abutments | None |
| Distance from deck to parapet | 1.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | | |
| Bottom width (ft) | 13 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|----------------------------|--|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 5925 | | | |
| Angle of Skew | | | |
| Geometry | Elliptical | Headwall to embankment | 20 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 20 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 7.5 | Length | 54 |
| Bottom width | | Cover to top of deck | 3.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5.5 | | |

| | | | | | |
|---------------------------------------|-----|-------------------|--------------------------------|----------------|--|
| Stream Channel Characteristics | | | | | |
| Upstream | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with trees and/or fences | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 14 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 2.5 | | | | |

Spans

| | |
|---------------------------------|------|
| Geometry | Arch |
| Width | 9 |
| Height | 5.5 |
| Height where arch begins | 0 |
| Distance from low chord to deck | 2 |
| Distance from deck to parapet | 1 |
| Angle of skew of flow | 30 |

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 17 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 20 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

Bridge Information
Structure ID YB 5930
Piers

| | |
|--------------------|-------|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 38 |
| Shape of abutments | None |
| Type of parapet | Other |

Stream Channel Characteristics**Floodplain**

| | |
|-------|-----------------------|
| Left | Cultivated area |
| Right | Light brush and trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Floodplain

| | |
|-------|--|
| Left | Light brush and trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Stones and Weeds |

Spans

| | |
|---------------------------------|------|
| Geometry | Box |
| Width | 140 |
| Height | 11.5 |
| Height where arch begins | |
| Distance from low chord to deck | 3 |
| Distance from deck to parapet | 3 |
| Angle of skew of flow | 45 |

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 140 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7 |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 150 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

Bridge Information
Structure ID YB 5931
Piers

| | |
|--------------------|-------------|
| Number | 2 |
| Shape | Square nose |
| Width at bottom | 4.5 |
| Width | 4.5 |
| Height at bottom | |
| Length | 28 |
| Shape of abutments | None |
| Type of parapet | Other |

Stream Channel Characteristics**Floodplain**

| | |
|-------|-----------------------|
| Left | Light brush and trees |
| Right | Light brush and trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Pools and Shoals |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Paved or impervious |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

| | | | |
|---------------------------------|---------|---|-----------------------------------|
| Spans | | Bridge Information Structure ID YB 5935 | |
| Geometry | ConSpan | Piers | |
| Width | 688 | Number | 6 |
| Height | 25+ | Shape | Elongated with semi-circular ends |
| Height where arch begins | | Width at bottom | |
| | | Width | 3 |
| | | Height at bottom | |
| | | Length | |
| Distance from low chord to deck | 10 | Shape of abutments | |
| Distance from deck to parapet | 5 | Type of parapet | |
| Angle of skew of flow | 0 | | |

| | | | |
|-------------------|--|---------------------------------------|----------------|
| Upstream | | Stream Channel Characteristics | |
| Bottom width (ft) | | Floodplain | N Value |
| Bank Geom. Horiz. | | Left | Left |
| Bank Geom. Vert. | | Right | Right |
| Bank Full Depth | | | |
| Downstream | | Floodplain | N Value |
| Bottom width (ft) | | Left | Left |
| Bank Geom. Horiz. | | Right | Right |

| | | | |
|---------------------------------|-----|---|--|
| Spans | | Bridge Information Structure ID YB 5937 | |
| Geometry | Box | Piers | |
| Width | 37 | Number | 0 |
| Height | 8.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 25.5 |
| Distance from low chord to deck | | Shape of abutments | |
| Distance from deck to parapet | | Type of parapet | |
| Angle of skew of flow | | | |
| Upstream | | Stream Channel Characteristics | |
| Bottom width (ft) | 40 | Floodplain | N Value |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees Right Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | |
| Downstream | | Floodplain | N Value |
| Bottom width (ft) | 48 | Left | Medium to dense brush with scattered trees Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees Right Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | |
| Bank Full Depth | 4 | | |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID YB 5940 | |
| Geometry | Box | Piers | |
| Width | 101 | Number | 1 |
| Height | 11 | Shape | Circular |
| Height where arch begins | | Width at bottom | |
| | | Width | 3 |
| | | Height at bottom | |
| | | Length | 21 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | 0 | Type of parapet | Guide Rail |
| Angle of skew of flow | 10 | | |

| | |
|-------------------|-----|
| Upstream | |
| Bottom width (ft) | 110 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |
| Downstream | |
| Bottom width (ft) | 95 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7 |

| | | |
|---------------------------------------|--|--|
| Stream Channel Characteristics | | |
| Floodplain | | |
| Left | Medium to dense brush with scattered trees | N Value Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right Clean and Straight - Some Stones and Weeds |
| Floodplain | | |
| Left | Medium to dense brush with scattered trees | N Value Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right Clean and Straight - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID YB 5941 | |
| Geometry | Box | Piers | |
| Width | 16 | Number | 0 |
| Height | 5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 20 |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 13 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |
| Downstream | |
| Bottom width (ft) | 22 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | |
|---------------------------------------|--|--|
| Stream Channel Characteristics | | |
| Floodplain | | |
| Left | Impervious with structures, commercial | N Value Left Streams in wide valleys |
| Right | Paved or impervious | Right Clean and Straight - No Riffs or Pools |
| Floodplain | | |
| Left | Paved or impervious | N Value Left Streams in wide valleys |
| Right | Paved or impervious | Right Clean and Straight - No Riffs or Pools |

| | | | |
|---------------------------------|-----|---|-------|
| Spans | | Bridge Information Structure ID YB 5945 | |
| Geometry | Box | Piers | |
| Width | 31 | Number | 0 |
| Height | 10 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 34 |
| Distance from low chord to deck | 4 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 20 | | |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 21 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 12 |
| Downstream | |
| Bottom width (ft) | 35 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|-----------------------|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | | |
| Left | Light brush and trees | N Value | Left Streams in wide valleys |
| Right | Light brush and trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

| | | | |
|---------------------------------|------|---|----------|
| Spans | | Bridge Information Structure ID YB 5946 | |
| Geometry | Box | Piers | |
| Width | 15 | Number | 0 |
| Height | 10.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 36 |
| Distance from low chord to deck | 4.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 14 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |
| Downstream | |
| Bottom width (ft) | 11 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | | |
|---------------------------------------|--|----------------|--|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Floodplain | | | |
| Left | Lawn, with trees and/or fences | N Value | Left Streams in wide valleys |
| Right | Lawn, with trees and/or fences | Right | Clean and Straight - Some Stones and Weeds |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 60 |
| Height | 9.5 |
| Height where arch begins | |
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | 4 |
| Angle of skew of flow | 20 |

| | |
|---------------------------|--------------------------------------|
| Bridge Information | |
| Structure ID YB 5947 | |
| Piers | |
| Number | 2 |
| Shape | Triangular nose with 60 degree angle |
| Width at bottom | 5 |
| Width | 3.5 |
| Height at bottom | 3 |
| Length | 12 |
| Shape of abutments | None |
| Type of parapet | Other |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 30 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | |
|---------------------------------------|--|--|
| Stream Channel Characteristics | | |
| Floodplain | | |
| Left | Impervious with structures, commercial | N Value Left Streams in wide valleys |
| Right | Paved or impervious | Right Clean and Straight - Some Stones and Weeds |

| | |
|-------------------|----|
| Downstream | |
| Bottom width (ft) | 21 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 12 |

| | | |
|-------------------|------------------------------|--|
| Floodplain | | |
| Left | Scattered brush, heavy weeds | N Value Left Streams in wide valleys |
| Right | Scattered brush, heavy weeds | Right Clean and Straight - Some Stones and Weeds |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 9 |
| Height | 5 |
| Height where arch begins | |
| Distance from low chord to deck | 1 |
| Distance from deck to parapet | 1 |
| Angle of skew of flow | 0 |

| | |
|---------------------------|-------|
| Bridge Information | |
| Structure ID YB 5948 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 27 |
| Shape of abutments | None |
| Type of parapet | Other |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 11 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | |
|---------------------------------------|--------------------------------|--|
| Stream Channel Characteristics | | |
| Floodplain | | |
| Left | Lawn, short grass | N Value Left Streams in wide valleys |
| Right | Lawn, with trees and/or fences | Right Clean and Straight - Some Stones and Weeds |

| | |
|-------------------|----|
| Downstream | |
| Bottom width (ft) | 16 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | | |
|-------------------|--------------------------------|---|
| Floodplain | | |
| Left | Lawn, short grass | N Value Left Streams in wide valleys |
| Right | Lawn, with trees and/or fences | Right Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID YB 5965

Angle of Skew

| | |
|------------------------|---|
| Geometry | Box |
| Material | RC |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel |
| Entrance Design | Square-edge at crown |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | 6 | Length | 30 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 30 |
| Headwall to pipe | 0 |
| Stream to pipe | 30 |

Stream Channel Characteristics
Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 11 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |

| | |
|-------------------|-------------------|
| Floodplain | |
| Left | Lawn, short grass |
| Right | Lawn, short grass |

| | |
|----------------|--|
| N Value | |
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 16 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

| | |
|-------------------|-----------------------|
| Floodplain | |
| Left | Light brush and trees |
| Right | Light brush and trees |

| | |
|----------------|--|
| N Value | |
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Spans

| | |
|---------------------------------|-------|
| Geometry | Other |
| Width | 103 |
| Height | 12.5 |
| Height where arch begins | |
| Distance from low chord to deck | 5.5 |
| Distance from deck to parapet | |
| Angle of skew of flow | 0 |

Bridge Information
 Structure ID YB 5976
Piers

| | |
|--------------------|----------|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 21 |
| Shape of abutments | Vertical |
| Type of parapet | |

Stream Channel Characteristics

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 79 |
| Bank Geom. Horiz. | 4 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

| | |
|-------------------|--------------------------------|
| Floodplain | |
| Left | Lawn, with trees and/or fences |
| Right | Lawn, with trees and/or fences |

| | |
|----------------|--|
| N Value | |
| Left | Streams in wide valleys |
| Right | Clean and Straight - No Riffs or Pools |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 81 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

| | |
|-------------------|--------------------------------|
| Floodplain | |
| Left | Light brush and trees |
| Right | Lawn, with trees and/or fences |

| | |
|----------------|--|
| N Value | |
| Left | Streams in wide valleys |
| Right | Clean and Straight - No Riffs or Pools |

| | | | |
|---------------------------------|------|---------------------------|-----------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 5977 | |
| Geometry | Box | Piers | |
| Width | 150 | Number | 1 |
| Height | 10.5 | Shape | Elongated with semi-circular ends |
| Height where arch begins | | Width at bottom | |
| | | Width | 3.5 |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 30 | | |

| | | | | |
|-------------------|-----|---------------------------------------|--------------------------------|--|
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | 82 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 7 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 100 | Left | Scattered brush, heavy weeds | Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 6 | | | |

| | | | |
|----------------------------|------------------------------------|-------------------------------|----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 5981 | | | |
| Angle of Skew | | | |
| Geometry | Squash Pipe | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 20 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 5.5 | Length | 40 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

| | | | | |
|---------------------------------------|----|-------------------|--|---|
| Stream Channel Characteristics | | Floodplain | | N Value |
| Upstream | | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bottom width (ft) | 9 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 2 | | | |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 10 | Left | Lawn, short grass | Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 3 | | | |

Culvert Information
Culvert ID YB 5982

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 20 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 34 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 2 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 4 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|-------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | = |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID YB 5986

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 41 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 6 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Full Depth | 5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID YB 5987

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 30 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 4.5 | Length | 44 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Full Depth | 3 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID YB 5988

Spans

| | |
|--------------------------|-------|
| Geometry | Other |
| Width | 131 |
| Height | 13.5 |
| Height where arch begins | |

Piers

| | |
|------------------|----|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 16 |

| | |
|---------------------------------|----|
| Distance from low chord to deck | 1 |
| Distance from deck to parapet | |
| Angle of skew of flow | 30 |

| | |
|--------------------|---------|
| Shape of abutments | Sloping |
| Type of parapet | Other |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 106 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 107 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 7 | | | | |

Culvert Information
Culvert ID YB 5991

Angle of Skew

| | |
|------------------------|---|
| Geometry | Circular |
| Material | RC |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls |
| Entrance Design | Socket end of pipe (grooved end) |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 60 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | 45 |
| Headwall to pipe | 0 |
| Stream to pipe | 45 |

Stream Channel Characteristics
Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 10 |

Floodplain

| | |
|-------|--|
| Left | Lawn, with trees and/or fences |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---------------------------------|
| Left | Streams in wide valleys |
| Right | Clean and Winding - More Stones |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 13 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|----------------------|
| Left | Lawn, with buildings |
| Right | Lawn, with buildings |

N Value

| | |
|-------|---------------------------------|
| Left | Streams in wide valleys |
| Right | Clean and Winding - More Stones |

Spans

| | |
|--------------------------|-----|
| Geometry | Box |
| Width | 314 |
| Height | 10 |
| Height where arch begins | |

Bridge Information
 Structure ID YB 5993
Piers

| | |
|------------------|-----------------------------------|
| Number | 2 |
| Shape | Elongated with semi-circular ends |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | |

| | |
|---------------------------------|--|
| Distance from low chord to deck | |
| Distance from deck to parapet | |
| Angle of skew of flow | |

| | |
|--------------------|------------|
| Shape of abutments | Vertical |
| Type of parapet | Guide Rail |

Stream Channel Characteristics

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 160 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 9 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Lawn, with trees and/or fences |
| Right | Lawn, with trees and/or fences |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 166 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7.5 |

Floodplain

| | |
|-------|--------------------------------|
| Left | Lawn, with trees and/or fences |
| Right | Lawn, with trees and/or fences |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Clean and Straight - Some Stones and Weeds |

Culvert Information
Culvert ID YB 6210

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Elliptical | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 0 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 2.5 | Length | 43 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2 | | |

Stream Channel Characteristics

Upstream

| | | | | |
|-------------------|---|-------------------|-------------------|----------------|
| Bottom width (ft) | 9 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right |
| Bank Full Depth | 4 | | | |

Downstream

| | | | | |
|-------------------|---|-------------------|-----------------------|----------------|
| Bottom width (ft) | 8 | Floodplain | | N Value |
| Bank Geom. Horiz. | 4 | Left | Light brush and trees | Left |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right |
| Bank Full Depth | 1 | | | |

Culvert Information
Culvert ID YB 6305

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Box | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | 45 |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 1.5 | Length | 43 |
| Bottom width | | Cover to top of deck | |
| Greatest width | | | |
| Diameter | | | |
| Height | 1 | | |

Stream Channel Characteristics

Upstream

| | | | | |
|-------------------|--|-------------------|-------------------|----------------|
| Bottom width (ft) | | Floodplain | | N Value |
| Bank Geom. Horiz. | | Left | Lawn, short grass | Left |
| Bank Geom. Vert. | | Right | Lawn, short grass | Right |
| Bank Full Depth | | | | |

Downstream

| | | | | |
|-------------------|-----|-------------------|-----------------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value |
| Bank Geom. Horiz. | 4 | Left | Light brush and trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 1.5 | | | |

Culvert Information
Culvert ID YB 6310

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 10 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 29 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 1.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Cultivated area | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---------------------------------------|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Pasture or field with no brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2 | | | | |

Bridge Information

Structure ID YB 6420

Spans

| | |
|--------------------------|-----|
| Geometry | Box |
| Width | 19 |
| Height | 6.5 |
| Height where arch begins | |

Piers

| | |
|------------------|----|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 43 |

| | |
|---------------------------------|-----|
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | 2.5 |
| Angle of skew of flow | 35 |

| | |
|--------------------|------------|
| Shape of abutments | None |
| Type of parapet | Guide Rail |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 8 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|---------------------------------|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Clean and Winding - More Stones |
| Bank Full Depth | 6 | | | | |

Culvert Information
Culvert ID YB 6955

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Elliptical | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 4.5 | Length | 55 |
| Bottom width | | Cover to top of deck | 4 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|-------------------|----------------|--|
| Bottom width (ft) | 17 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 15 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID YB 6995

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 57 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | 3 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|---|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---|------------|
| Spans | | Bridge Information Structure ID YB 7010 | |
| Geometry | Box | Piers | |
| Width | 18 | Number | 0 |
| Height | 6.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 20 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 45 | | |

| | | | | | |
|-------------------|----|---------------------------------------|-----------------------|----------------|---------------------------------------|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 14 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Light brush and trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | | |
| Bank Full Depth | 8 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 16 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | | | |
|---------------------------------|-----|---|--------------------------------|----------------|---|
| Spans | | Bridge Information Structure ID YB 7110 | | | |
| Geometry | Box | Piers | | | |
| Width | 24 | Number | 0 | | |
| Height | 9 | Shape | | | |
| Height where arch begins | | Width at bottom | | | |
| | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 15 | | |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical | | |
| Distance from deck to parapet | | Type of parapet | Guide Rail | | |
| Angle of skew of flow | 30 | | | | |
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 19 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | | |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 12 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-------|---------------------------|--------------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 7715 | |
| Geometry | Other | Piers | |
| Width | 118 | Number | 1 |
| Height | 10 | Shape | Triangular nose with 30 degree angle |
| Height where arch begins | | Width at bottom | 4 |
| | | Width | 4 |
| | | Height at bottom | |
| | | Length | 19 |
| Distance from low chord to deck | 2.5 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | |
|-------------------|----|---------------------------------------|--|--|
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | 90 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right Clean and Straight - No Rifts or Pools |
| Bank Full Depth | 7 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 92 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 7 | | | |

Culvert Information
Culvert ID YB 7810

| | | | |
|------------------------|--|-------------------------------|----|
| Angle of Skew | | Barrel Characteristics | |
| Geometry | Elliptical | Headwall to embankment | 45 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

| | | | |
|-------------------|----|----------------------|----|
| Dimensions | | | |
| Width | 10 | Length | 31 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 6 | | |

| | | | | |
|---------------------------------------|-----|-------------------|--|---|
| Stream Channel Characteristics | | | | |
| Upstream | | Floodplain | | N Value |
| Bottom width (ft) | 7 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 17 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Medium to dense brush | Right Clean and Winding - Some Pools and Shoals |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5.5 | | | |

Culvert Information
Culvert ID YB 7876

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 80 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 75 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 7.5 | Length | 55 |
| Bottom width | | Cover to top of deck | 3.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 1 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Culvert Information
Culvert ID YB 8210

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 90 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 90 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 30 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 6 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID YB 8305

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 60 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 30 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 9.5 | Length | 41 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Paved or impervious | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID YB 8410

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 60 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 90 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 9 | Length | 45 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 4 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 8425 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 23 | Shape | |
| Height | 7.5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 35 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | | | |

| | | | | |
|-------------------|----|---------------------------------------|-----------------------|----------------|
| Upstream | | Stream Channel Characteristics | | |
| | | Floodplain | | N Value |
| Bottom width (ft) | 18 | Left | Light brush and trees | Left |
| Bank Geom. Horiz. | 2 | Right | Light brush and trees | Right |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 6 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 20 | Left | Light brush and trees | Left |
| Bank Geom. Horiz. | 3 | Right | Lawn with buildings | Right |

| | | | | |
|---------------------------------|-----|---------------------------------------|--|--|
| Spans | | Bridge Information | | |
| | | Structure ID YB 8450 | | |
| | | Piers | | |
| Geometry | Box | Number | 1 | |
| Width | 116 | Shape | Elongated with semi-circular ends | |
| Height | 6 | Width at bottom | | |
| Height where arch begins | | Width | 3 | |
| | | Height at bottom | | |
| | | Length | 47 | |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical | |
| Distance from deck to parapet | 3 | Type of parapet | Guide Rail | |
| Angle of skew of flow | 20 | | | |
| Upstream | | Stream Channel Characteristics | | |
| | | Floodplain | | N Value |
| Bottom width (ft) | 85 | Left | Paved or impervious | Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 80 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 4 | | | |

Culvert Information
Culvert ID YB 8610

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Box | Headwall to embankment | 30 |
| Material | RC | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | 45 |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 15 | Length | 38 |
| Bottom width | | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5.5 | | |

Stream Channel Characteristics

Upstream

| | |
|-------------------|---|
| Bottom width (ft) | 7 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

Floodplain

| | |
|-------|--|
| Left | Paved or impervious |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---------------------------------|
| Left | Streams in wide valleys |
| Right | Clean and Winding - More Stones |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 7 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Lawn, with buildings |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

Bridge Information

Structure ID YB 8610

Spans

| | |
|--------------------------|-----|
| Geometry | Box |
| Width | 15 |
| Height | 5.5 |
| Height where arch begins | |

Piers

| | |
|------------------|---|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | |

Distance from low chord to deck
 Distance from deck to parapet
 Angle of skew of flow

| | |
|--------------------|------------|
| Shape of abutments | Vertical |
| Type of parapet | Guide Rail |

Stream Channel Characteristics

Upstream

| | |
|-------------------|---|
| Bottom width (ft) | 7 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |

Floodplain

| | |
|-------|--|
| Left | Paved or impervious |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---------------------------------|
| Left | Streams in wide valleys |
| Right | Clean and Winding - More Stones |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 7 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3.5 |

Floodplain

| | |
|-------|------------------------------|
| Left | Scattered brush, heavy weeds |
| Right | Lawn, with buildings |

N Value

| | |
|-------|--|
| Left | Streams in wide valleys |
| Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |

| | | | |
|---------------------------------|-----|---------------------------|-------|
| Spans | | Bridge Information | |
| | | Structure ID YB 8705 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 40 | Shape | |
| Height | 4 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 65 |
| Distance from low chord to deck | 2 | Shape of abutments | Other |
| Distance from deck to parapet | 3 | Type of parapet | Other |
| Angle of skew of flow | 90 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|-----------------------|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 8 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Paved or impervious | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Paved or impervious | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-----------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 8820 | |
| | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 26 | Shape | Elongated with semi-circular ends |
| Height | 4.5 | Width at bottom | |
| Height where arch begins | | Width | 4 |
| | | Height at bottom | |
| | | Length | 37 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | 2.5 | Type of parapet | Guide Rail |
| Angle of skew of flow | 20 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 93 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Right | Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 106 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 8910 | |
| Geometry | Box | Piers | |
| Width | 17 | Number | 0 |
| Height | 4.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 26 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|---|---------------------------------------|--------------------------------|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 9 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Lawn, with buildings | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--------------------------------|----------------|--|
| Spans | | Bridge Information | | | |
| | | Structure ID YB 8930 | | | |
| Geometry | Box | Piers | | | |
| Width | 26 | Number | 0 | | |
| Height | 4.5 | Shape | | | |
| Height where arch begins | | Width at bottom | | | |
| | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 36 | | |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical | | |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier | | |
| Angle of skew of flow | 0 | | | | |
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 14 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Right | Clean and Straight - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | | |
| Bank Full Depth | 3.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 35 | Right | Light brush and trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID YB 8936

Barrel Characteristics

Angle of Skew

| | | |
|------------------------|------------------------------------|------------------------|
| Geometry | Circular | Headwall to embankment |
| Material | CM | Headwall to pipe |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe |
| Entrance Design | Projected from fill (no headwall) | |
| Depth barrel is filled | 0 | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | | Length | 63 |
| Bottom width | | Cover to top of deck | 8 |
| Greatest width | | | |
| Diameter | 1.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | |
|-------------------|---|-------------------|--|----------------|
| Bottom width (ft) | 4 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right |
| Bank Full Depth | 3 | | | |

Downstream

| | | | | |
|-------------------|--|-------------------|--|----------------|
| Bottom width (ft) | | Floodplain | | N Value |
| Bank Geom. Horiz. | | Left | | Left |
| Bank Geom. Vert. | | Right | | Right |
| Bank Full Depth | | | | |

Culvert Information
Culvert ID YB 8965

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 45 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 45 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 5.5 | Length | 17 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3.5 | | |

Stream Channel Characteristics

Upstream

| | | | | |
|-------------------|-----|-------------------|--------------------------------|---|
| Bottom width (ft) | 10 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 4.5 | | | |

Downstream

| | | | | |
|-------------------|----|-------------------|-----------------------|---|
| Bottom width (ft) | 15 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5 | | | |

Culvert Information
Culvert ID YB 8973

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|---|------------------------|----|
| Geometry | Box | Headwall to embankment | 45 |
| Material | RC | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no Stream to pipe wingwalls) | | |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | 9 | Length | 50 |
| Bottom width | | Cover to top of deck | 4 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 18 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Full Depth | 4 | | | | |

Bridge Information

Structure ID YB 8981

Spans

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Geometry | Box | Number | 0 |
| Width | 9 | Shape | |
| Height | 8 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 145 |
| Distance from low chord to deck | 4 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|----------------------|----------------|---------------------------------------|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Cultivated area | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---------------------------------------|
| Bottom width (ft) | 16 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Sluggish Reaches - Weedy - Deep Pools |
| Bank Full Depth | 2.5 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|-------|
| Spans | | Bridge Information | |
| | | Structure ID YB 8982 | |
| Geometry | Box | Piers | |
| Width | 6 | Number | 0 |
| Height | 6 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 41.5 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | |
|-------------------|----|---------------------------------------|--------------------------------|----------------|
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | 12 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left |
| Bank Geom. Vert. | 1 | Right | Cultivated area | Right |
| Bank Full Depth | 4 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 14 | Left | Medium to dense brush | Left |
| Bank Geom. Horiz. | 4 | Right | Medium to dense brush | Right |

| | | | |
|---------------------------|--|-------------------------------|----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 8993 | | | |
| Angle of Skew | | | |
| Geometry | Elliptical | Headwall to embankment | 45 |
| Material | CM | Headwall to pipe | 45 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | 5.5 | Length | 34 |
| Bottom width | | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

| | | | | |
|---------------------------------------|----|-------------------|--|----------------|
| Stream Channel Characteristics | | | | |
| Upstream | | Floodplain | | N Value |
| Bottom width (ft) | 8 | Left | Medium to dense brush with scattered trees | Left |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 3 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 10 | Left | Scattered brush, heavy weeds | Left |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 4 | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 9005 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 17 | Shape | |
| Height | 6 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 1.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 60 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 9 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 7 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

| | | | | | |
|---------------------------------|-------|---------------------------------------|--|----------------|--|
| Spans | | Bridge Information | | | |
| | | Structure ID YB 9006 | | | |
| | | Piers | | | |
| Geometry | Other | Number | 0 | | |
| Width | 105 | Shape | | | |
| Height | 7.5 | Width at bottom | | | |
| Height where arch begins | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 17 | | |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical | | |
| Distance from deck to parapet | | Type of parapet | Other | | |
| Angle of skew of flow | 10 | | | | |
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 73 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 83 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID YB 9015

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe Projecting from Fill (no headwall) | Stream to pipe | 20 |
| Entrance Design | Socket end of pipe (flared end) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | | Length | 78 |
| Bottom width | | Cover to top of deck | 4.5 |
| Greatest width | | | |
| Diameter | 6 | | |
| Height | | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|-----------------------|----------------|---|
| Bottom width (ft) | 6 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 5.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 18 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - More Stones |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID YB 9045

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Elliptical | Headwall to embankment | 10 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|----|
| Width | 5 | Length | 40 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | | | |
| Height | 2.5 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 4 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--------------------------------|----------------|---------------------------------|
| Bottom width (ft) | 14 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - More Stones |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|------|---------------------------|--------------------------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 9065 | |
| Geometry | Arch | Piers | |
| Width | 135 | Number | 3 |
| | | Shape | Triangular nose with 30 degree angle |
| Height | 10.5 | Width at bottom | 7 |
| Height where arch begins | | Width | 2 |
| | | Height at bottom | |
| | | Length | 23 |
| Distance from low chord to deck | 5 | Shape of abutments | None |
| Distance from deck to parapet | 2 | Type of parapet | Other |
| Angle of skew of flow | 0 | | |

| | | | | |
|-------------------|-----|---------------------------------------|--|--|
| Upstream | | Stream Channel Characteristics | | |
| Bottom width (ft) | 120 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Left Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right Clean and Straight - No Rifts or Pools |
| Bank Full Depth | 4 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 110 | Left | Medium to dense brush with scattered trees | Left Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right Clean and Straight - No Rifts or Pools |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5.5 | | | |

| | | | |
|---------------------------|--|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 9110 | | | |
| Angle of Skew | | | |
| Geometry | Box | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | |
| Entrance Type | Headwall Parallel to Embankment (no wingwalls) | Stream to pipe | |
| Entrance Design | Square-edged on three edges | | |
| Depth barrel is filled | 1.5 | | |
| Dimensions | | | |
| Width | 21 | Length | 1 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 6 | | |

| | | | | |
|---------------------------------------|-----|-------------------|--------------------------------|---|
| Stream Channel Characteristics | | Floodplain | | N Value |
| Upstream | | Left | Medium to dense brush | Left Streams in wide valleys |
| Bottom width (ft) | 10 | Right | Lawn, with buildings | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 2 | | | |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5.5 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 7 | Left | Pasture or field with no brush | Left Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 3 | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 9130 | |
| Geometry | Box | Piers | |
| Width | 12 | Number | 0 |
| Height | 7.5 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 32 |
| Distance from low chord to deck | 1 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | | | | | |
|-------------------|----|---------------------------------------|--|----------------|---|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 10 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | | |
| Bank Full Depth | 5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 8 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 2 | Right | Lawn, with buildings | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5 | | | | |

| | | | | | |
|---------------------------------|-----|---------------------------------------|--------------------------------|----------------|---------------------------------|
| Spans | | Bridge Information | | | |
| | | Structure ID YB 9135 | | | |
| Geometry | Box | Piers | | | |
| Width | 10 | Number | 0 | | |
| Height | 5.5 | Shape | | | |
| Height where arch begins | | Width at bottom | | | |
| | | Width | | | |
| | | Height at bottom | | | |
| | | Length | 32 | | |
| Distance from low chord to deck | 1.5 | Shape of abutments | Vertical | | |
| Distance from deck to parapet | | Type of parapet | Guide Rail | | |
| Angle of skew of flow | 75 | | | | |
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 12 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | | |
| Bank Full Depth | 4 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |

Culvert Information
Culvert ID YB 9150

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|----|
| Geometry | Circular | Headwall to embankment | 60 |
| Material | CM | Headwall to pipe | 75 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 60 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | | Length | 187 |
| Bottom width | | Cover to top of deck | 4 |
| Greatest width | | | |
| Diameter | 3.5 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 4 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 3.5 | | | | |

Downstream

| | | | | | |
|-------------------|--|-------------------|--|----------------|--|
| Bottom width (ft) | | Floodplain | | N Value | |
| Bank Geom. Horiz. | | Left | | Left | |
| Bank Geom. Vert. | | Right | | Right | |
| Bank Full Depth | | | | | |

Culvert Information
Culvert ID YB 9160

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|---|------------------------|----|
| Geometry | Box | Headwall to embankment | 30 |
| Material | RC | Headwall to pipe | |
| Entrance Type | Wingwalls at 30 to 75 degrees to Barrel | Stream to pipe | |
| Entrance Design | Square-edge at crown | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|-----|----------------------|-----|
| Width | 12 | Length | 37 |
| Bottom width | | Cover to top of deck | 0.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 4.5 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|---------------------------------|
| Bottom width (ft) | 8 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - More Stones |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|--|
| Bottom width (ft) | 7 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 2 | Left | Medium to dense brush | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Impervious with structures, commercial | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID YB 9175

Barrel Characteristics

Angle of Skew

| | | |
|---------------|------------------------------------|------------------------|
| Geometry | Squash Pipe | Headwall to embankment |
| Material | CM | Headwall to pipe |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe |

| | |
|------------------------|-----------------------------------|
| Entrance Design | Projected from fill (no headwall) |
| Depth barrel is filled | 0 |

Dimensions

| | | | |
|----------------|---|----------------------|-----|
| Width | 5 | Length | 41 |
| Bottom width | | Cover to top of deck | 2.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics

Upstream

| | | | | |
|-------------------|---|-------------------|------------------------------|----------------|
| Bottom width (ft) | 7 | Floodplain | | N Value |
| Bank Geom. Horiz. | 4 | Left | Scattered brush, heavy weeds | Left |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right |
| Bank Full Depth | 5 | | | |

Downstream

| | | | | |
|-------------------|---|-------------------|--------------------------------|----------------|
| Bottom width (ft) | 7 | Floodplain | | N Value |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left |
| Bank Geom. Vert. | 1 | Right | Pasture or field with no brush | Right |
| Bank Full Depth | 4 | | | |

Culvert Information
Culvert ID YB 9180

Barrel Characteristics

Angle of Skew

| | | |
|---------------|------------------------------------|------------------------|
| Geometry | Circular | Headwall to embankment |
| Material | CM | Headwall to pipe |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe |

| | |
|------------------------|-----------------------------------|
| Entrance Design | Projected from fill (no headwall) |
| Depth barrel is filled | 1 |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 30 |
| Bottom width | | Cover to top of deck | 3 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | |
|-------------------|---|-------------------|-------------------|----------------|
| Bottom width (ft) | 8 | Floodplain | | N Value |
| Bank Geom. Horiz. | 4 | Left | Lawn, short grass | Left |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right |
| Bank Full Depth | 3 | | | |

Downstream

| | | | | |
|-------------------|--|-------------------|-----------------------|----------------|
| Bottom width (ft) | | Floodplain | | N Value |
| Bank Geom. Horiz. | | Left | Medium to dense brush | Left |
| Bank Geom. Vert. | | Right | Medium to dense brush | Right |
| Bank Full Depth | | | | |

Culvert Information
Culvert ID YB 9181

| Angle of Skew | | Barrel Characteristics | |
|------------------------|---|-------------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | RC | Headwall to pipe | |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | | Length | |
| Bottom width | | Cover to top of deck | 17 |
| Greatest width | | | |
| Diameter | 6 | | |
| Height | | | |

Stream Channel Characteristics

| Upstream | | Floodplain | | N Value |
|-------------------|--|-------------------|--|----------------|
| Bottom width (ft) | | Left | | Left |
| Bank Geom. Horiz. | | Right | | Right |
| Bank Geom. Vert. | | | | |
| Bank Full Depth | | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | | Left | | Left |
| Bank Geom. Horiz. | | Right | | Right |
| Bank Geom. Vert. | | | | |
| Bank Full Depth | | | | |

Culvert Information
Culvert ID YB 9190

| Angle of Skew | | Barrel Characteristics | |
|------------------------|--|-------------------------------|----|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | | Length | 42 |
| Bottom width | | Cover to top of deck | 6 |
| Greatest width | | | |
| Diameter | 4.5 | | |
| Height | | | |

Stream Channel Characteristics

| Upstream | | Floodplain | | N Value |
|-------------------|-----|-------------------|--------------------------------|----------------|
| Bottom width (ft) | 6.5 | Left | Lawn, short grass | Left |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 5.5 | | | |
| Downstream | | Floodplain | | N Value |
| Bottom width (ft) | 8 | Left | Pasture or field with no brush | Left |
| Bank Geom. Horiz. | 4 | Right | Pasture or field with no brush | Right |
| Bank Geom. Vert. | 1 | | | |
| Bank Full Depth | 3 | | | |

Spans

| | |
|---------------------------------|-------|
| Geometry | Other |
| Width | 138 |
| Height | 14 |
| Height where arch begins | |
| Distance from low chord to deck | 3 |
| Distance from deck to parapet | |
| Angle of skew of flow | 20 |

Upstream

| | |
|-------------------|-----|
| Bottom width (ft) | 145 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 10 |

Downstream

| | |
|-------------------|-----|
| Bottom width (ft) | 120 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5.5 |

Bridge Information
 Structure ID YB 9197
Piers

| | |
|--------------------|------------|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 30 |
| Shape of abutments | Vertical |
| Type of parapet | Guide Rail |

Stream Channel
Characteristics
Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|-------------------------|
| Left | Streams in wide valleys |
| Right | |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---------------------------------|
| Left | Streams in wide valleys |
| Right | Clean and Winding - More Stones |

Spans

| | |
|---------------------------------|-------|
| Geometry | Other |
| Width | 30 |
| Height | 9 |
| Height where arch begins | |
| Distance from low chord to deck | 3 |
| Distance from deck to parapet | |
| Angle of skew of flow | 45 |

Upstream

| | |
|-------------------|----|
| Bottom width (ft) | 30 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

Downstream

| | |
|-------------------|----|
| Bottom width (ft) | 30 |
| Bank Geom. Horiz. | 1 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

Bridge Information
 Structure ID YB 9197.2
Piers

| | |
|--------------------|------------|
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 30 |
| Shape of abutments | Vertical |
| Type of parapet | Guide Rail |

Stream Channel
Characteristics
Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Medium to dense brush with scattered trees |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Pools and Shoals |

Floodplain

| | |
|-------|--|
| Left | Medium to dense brush with scattered trees |
| Right | Lawn, with buildings |

N Value

| | |
|-------|---|
| Left | Streams in wide valleys |
| Right | Clean and Winding - Some Pools and Shoals |

| | | | |
|---------------------------------|-------|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 9198 | |
| Geometry | Other | Piers | |
| Width | 136 | Number | 0 |
| Height | 12 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 16 |
| Distance from low chord to deck | 3 | Shape of abutments | Vertical |
| Distance from deck to parapet | | Type of parapet | Guide Rail |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | | |
| Bottom width (ft) | 130 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 7 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 114 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 8 | | | | |

| | | | |
|---------------------------|--|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 9310 | | | |
| Angle of Skew | | | |
| Geometry | Circular | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | | |
| Width | | Length | 55 |
| Bottom width | | Cover to top of deck | 8.5 |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

| | | | | | |
|---------------------------------------|-----|-------------------|--------------------------------|----------------|--|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Light brush and trees | Left | |
| Bottom width (ft) | 12 | Right | Light brush and trees | Right | |
| Bank Geom. Horiz. | 3 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 18 | Left | Pasture or field with no brush | Left | |
| Bank Geom. Horiz. | 4 | Right | Pasture or field with no brush | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 9320 | |
| | | Piers | |
| Geometry | Box | Number | 0 |
| Width | 10 | Shape | |
| Height | 5 | Width at bottom | |
| Height where arch begins | | Width | |
| | | Height at bottom | |
| | | Length | 40 |
| Distance from low chord to deck | 2.5 | Shape of abutments | None |
| Distance from deck to parapet | | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|-----------------------|----------------|---------------------------------|
| Upstream | | Stream Channel Characteristics | | N Value | |
| Bottom width (ft) | 11 | Floodplain | | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Left | Light brush and trees | Right | Clean and Winding - More Stones |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | | |
| Bank Full Depth | 5.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 9 | Left | Lawn, with buildings | Left | |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3.5 | | | | |

| | | | |
|---------------------------|---|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 9330 | | | |
| Angle of Skew | | | |
| Geometry | Circular | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 30 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 164 |
| Width | | Cover to top of deck | 18 |
| Bottom width | | | |
| Greatest width | | | |
| Diameter | 5 | | |
| Height | | | |

| | | | | | |
|---------------------------------------|-----|-------------------|-----------------------|----------------|---|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Light brush and trees | Left | Streams in wide valleys |
| Bottom width (ft) | 7 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Horiz. | 3 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 4.5 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 11 | Left | Light brush and trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 5.5 | | | | |

Culvert Information
Culvert ID YB 9410

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Circular | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 80 |
| Bottom width | | Cover to top of deck | 1 |
| Greatest width | | | |
| Diameter | 4 | | |
| Height | | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|-------------------------|
| Bottom width (ft) | 11 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Scattered brush, heavy weeds | Right | |
| Bank Full Depth | 4.5 | | | | |

Downstream

| | | | | | |
|-------------------|-----|-------------------|--|----------------|-------------------------|
| Bottom width (ft) | 10 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | |
| Bank Full Depth | 3.5 | | | | |

Bridge Information

Structure ID YB 9441

Spans

| | |
|--------------------------|------|
| Geometry | Box |
| Width | 235 |
| Height | 26.5 |
| Height where arch begins | |

Piers

| | |
|------------------|-----------------------------------|
| Number | 2 |
| Shape | Elongated with semi-circular ends |
| Width at bottom | |
| Width | 3 |
| Height at bottom | |
| Length | 84 |

| | | | |
|---------------------------------|-----|--------------------|------------------|
| Distance from low chord to deck | 5.5 | Shape of abutments | None |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

Stream Channel Characteristics

Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 95 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 8 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|--|
| Bottom width (ft) | 88 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 8 | | | | |

| | | | |
|---------------------------------|-----|---------------------------|------------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 9455 | |
| | | Piers | |
| Geometry | Box | Number | 1 |
| Width | 136 | Shape | Square nose |
| Height | 17 | Width at bottom | |
| Height where arch begins | | Width | 3 |
| | | Height at bottom | |
| | | Length | 42 |
| Distance from low chord to deck | 2 | Shape of abutments | Vertical |
| Distance from deck to parapet | 3 | Type of parapet | Concrete Barrier |
| Angle of skew of flow | 0 | | |

| | | | | | |
|-------------------|-----|---------------------------------------|--|----------------|--|
| Upstream | | Stream Channel Characteristics | | | |
| Bottom width (ft) | 115 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Full Depth | 6 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 121 | Left | Medium to dense brush with scattered trees | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 4 | Right | Lawn, with trees and/or fences | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 6 | | | | |

| | | | |
|---------------------------|---|-------------------------------|-----|
| Culvert Information | | Barrel Characteristics | |
| Culvert ID YB 9711 | | | |
| Angle of Skew | | | |
| Geometry | Arch | Headwall to embankment | 0 |
| Material | RC | Headwall to pipe | 0 |
| Entrance Type | Concrete Pipe with Headwall or Headwall and Wingwalls | Stream to pipe | 0 |
| Entrance Design | Square cut end of pipe (straight end) | | |
| Depth barrel is filled | 0 | | |
| Dimensions | | Length | 249 |
| Width | | Cover to top of deck | 18 |
| Bottom width | 16 | | |
| Greatest width | | | |
| Diameter | | | |
| Height | 10 | | |

| | | | | | |
|---------------------------------------|----|-------------------|------------------------------|----------------|--|
| Stream Channel Characteristics | | Floodplain | | N Value | |
| Upstream | | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bottom width (ft) | 21 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Horiz. | 0 | | | | |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |
| Downstream | | Floodplain | | N Value | |
| Bottom width (ft) | 10 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Horiz. | 3 | Right | Scattered brush, heavy weeds | Right | Clean and Straight - No Riffs or Pools |
| Bank Geom. Vert. | 1 | | | | |
| Bank Full Depth | 3 | | | | |

Culvert Information
Culvert ID YB 9712

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|------------------------------------|------------------------|---|
| Geometry | Arch | Headwall to embankment | |
| Material | CM | Headwall to pipe | |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Projected from fill (no headwall) | | |
| Depth barrel is filled | 0 | | |

Dimensions

| | | | |
|----------------|----|----------------------|-----|
| Width | | Length | 42 |
| Bottom width | 11 | Cover to top of deck | 1.5 |
| Greatest width | | | |
| Diameter | | | |
| Height | 5 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|----|-------------------|--|----------------|---|
| Bottom width (ft) | 14 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, with buildings | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Bank Full Depth | 6 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|----------------------|----------------|--|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Lawn, short grass | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, with buildings | Right | Clean and Straight - Some Stones and Weeds |
| Bank Full Depth | 5 | | | | |

Culvert Information
Culvert ID YB 9810

Barrel Characteristics

Angle of Skew

| | | | |
|------------------------|--|------------------------|---|
| Geometry | Arch | Headwall to embankment | 0 |
| Material | CM | Headwall to pipe | 0 |
| Entrance Type | Corrugated Metal Pipe or Pipe-Arch | Stream to pipe | 0 |
| Entrance Design | Headwall or headwall and wingwalls square edge | | |
| Depth barrel is filled | 0.5 | | |

Dimensions

| | | | |
|----------------|---|----------------------|----|
| Width | | Length | 36 |
| Bottom width | 5 | Cover to top of deck | 2 |
| Greatest width | | | |
| Diameter | | | |
| Height | 3 | | |

Stream Channel Characteristics
Upstream

| | | | | | |
|-------------------|-----|-------------------|--------------------------------|----------------|--|
| Bottom width (ft) | 5 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 4 | Left | Lawn, with trees and/or fences | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Lawn, short grass | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 2.5 | | | | |

Downstream

| | | | | | |
|-------------------|----|-------------------|------------------------------|----------------|--|
| Bottom width (ft) | 12 | Floodplain | | N Value | |
| Bank Geom. Horiz. | 3 | Left | Scattered brush, heavy weeds | Left | Streams in wide valleys |
| Bank Geom. Vert. | 1 | Right | Light brush and trees | Right | Very Weedy - Deep Pools - Floodways with Heavy Stands of |
| Bank Full Depth | 4 | | | | |

| | |
|---------------------------------|------|
| Spans | |
| Geometry | Box |
| Width | 13.5 |
| Height | 6 |
| Height where arch begins | |
| Distance from low chord to deck | 1.5 |
| Distance from deck to parapet | 2 |
| Angle of skew of flow | 20 |

| | |
|---------------------------|------------------|
| Bridge Information | |
| Structure ID YB 9945 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 42 |
| Shape of abutments | None |
| Type of parapet | Concrete Barrier |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 14 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 5 |
| Downstream | |
| Bottom width (ft) | 21 |
| Bank Geom. Horiz. | 0 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 3 |

| | | | |
|---------------------------------------|--|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Medium to dense brush with scattered trees | N Value | Left Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | | |
| Left | Light brush and trees | N Value | Left Streams in wide valleys |
| Right | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |

| | |
|---------------------------------|-----|
| Spans | |
| Geometry | Box |
| Width | 8.5 |
| Height | 4 |
| Height where arch begins | |
| Distance from low chord to deck | 2.5 |
| Distance from deck to parapet | |
| Angle of skew of flow | 0 |

| | |
|---------------------------|----------|
| Bridge Information | |
| Structure ID YB 10105 | |
| Piers | |
| Number | 0 |
| Shape | |
| Width at bottom | |
| Width | |
| Height at bottom | |
| Length | 50 |
| Shape of abutments | Vertical |
| Type of parapet | |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 11 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |
| Downstream | |
| Bottom width (ft) | 9 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 6 |

| | | | |
|---------------------------------------|--------------------------------|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | | |
| Left | Light brush and trees | N Value | Left Streams in wide valleys |
| Right | Light brush and trees | Right | Clean and Straight - No Riffs or Pools |
| Floodplain | | | |
| Left | Lawn, with trees and/or fences | N Value | Left Streams in wide valleys |
| Right | Lawn, short grass | Right | Clean and Winding - Some Stones and Weeds |

| | | | |
|---------------------------------|-----|---------------------------|------------|
| Spans | | Bridge Information | |
| | | Structure ID YB 10220 | |
| Geometry | Box | Piers | |
| Width | 15 | Number | 0 |
| Height | 7 | Shape | |
| Height where arch begins | | Width at bottom | |
| | | Width | |
| | | Height at bottom | |
| | | Length | 39 |
| Distance from low chord to deck | 1 | Shape of abutments | None |
| Distance from deck to parapet | 2 | Type of parapet | Guide Rail |
| Angle of skew of flow | 30 | | |

| | |
|-------------------|----|
| Upstream | |
| Bottom width (ft) | 17 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 8 |
| Downstream | |
| Bottom width (ft) | 21 |
| Bank Geom. Horiz. | 2 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7 |

| | | | |
|---------------------------------------|--|----------------|---|
| Stream Channel Characteristics | | | |
| Floodplain | | N Value | |
| Left | Light brush and trees | Left | Streams in wide valleys |
| Right | Scattered brush, heavy weeds | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | N Value | |
| Left | Lawn, with buildings | Left | Streams in wide valleys |
| Right | Impervious with structures, commercial | Right | Clean and Winding - Some Stones and Weeds |

Culvert Information
Culvert ID YB 10310

| | |
|------------------------|----------|
| Angle of Skew | |
| Geometry | Circular |
| Material | HDPE |
| Entrance Type | |
| Entrance Design | |
| Depth barrel is filled | 0 |
| Dimensions | |
| Width | |
| Bottom width | |
| Greatest width | |
| Diameter | 3 |
| Height | |

Barrel Characteristics

| | |
|------------------------|----|
| Headwall to embankment | |
| Headwall to pipe | |
| Stream to pipe | 20 |
| Length | 56 |
| Cover to top of deck | 1 |

| | |
|---------------------------------------|----|
| Stream Channel Characteristics | |
| Upstream | |
| Bottom width (ft) | 6 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 4 |
| Downstream | |
| Bottom width (ft) | 13 |
| Bank Geom. Horiz. | 3 |
| Bank Geom. Vert. | 1 |
| Bank Full Depth | 7 |

| | | | |
|-------------------|--|----------------|---|
| Floodplain | | N Value | |
| Left | Lawn, with buildings | Left | Streams in wide valleys |
| Right | Light brush and trees | Right | Clean and Winding - Some Stones and Weeds |
| Floodplain | | N Value | |
| Left | Light brush and trees | Left | Streams in wide valleys |
| Right | Medium to dense brush with scattered trees | Right | Clean and Winding - Some Pools and Shoals |

**APPENDIX D -
HYDROLOGIC MODEL PREPARATION**

**APPENDIX D
HYDROLOGIC MODEL PREPARATION**

1. EXISTING CONDITIONS MODEL

RAINFALL DATA

In conformance with the model ordinance, the National Weather Service’s Precipitation Frequency Data Server (<http://hdsc.nws.noaa.gov/hdsc/pfds/index.html>) was accessed to determine the 24-hour rainfall depths to be used within the HEC-HMS model. The following precipitation estimates for the centroid of Cumberland County were obtained. Within the HMS model, these 24-hour rainfall depths were distributed across a 24-hour period using the SCS Type II rainfall distribution curve, as recommended by Figure B-2 of the USDA NRCS Technical Release 55 (or, TR-55), June 1986.

| Average Recurrence Interval (years) | 24-Hour Rainfall (inches) |
|--|----------------------------------|
| 2 | 2.89 |
| 5 | 3.63 |
| 10 | 4.28 |
| 25 | 5.30 |
| 50 | 6.23 |
| 100 | 7.32 |

As part of the Stormwater Management Plan preparation, the Qualified Professional shall not rely upon the rainfall depths tabulated above. Rather, as specified in the ordinance, the Qualified Professional shall develop the Stormwater Management Plan based upon rainfall depths secured from the Precipitation Frequency Data Server to account for periodic updates by the National Weather Service.

SUBWATERSHED AREA

Subwatersheds were delineated within the study area to arrive at approximately 75 to 100 areas. As a first effort, subwatershed delineations were established at major confluences and junctions with the Conodoguinet and Yellow Breeches stream network (such as the confluences with LeTort Spring Run, Cedar Run, Old Town Run, etc.). These major level delineations were then evaluated to determine appropriate break points (such as major highways, geologic features, urban and rural transitions, smaller tributary confluences, etc.) to establish smaller scale subwatersheds. This process was repeated until the study area was divided into 75 to 100 subwatersheds of approximately equal size. This effort has resulted in 87 subwatersheds within this study.

Four additional subwatersheds were added to the HMS model to account for sources of runoff that are outside of the study area (namely, Mountain Creek, Upper Yellow Breeches Creek, Alexanders Spring Creek, and Upper Conodoguinet Creek). The hydrologic model relies upon historical gage data for calibration purposes. The gage data relate to the entire watershed. Therefore, the four additional subwatersheds were required to be added to the hydrological model to provide an accurate comparison between model results and gage data. As opposed to the subwatershed delineation effort used in the study area, these four flow contributions are modeled as a singular watershed area.

LAND COVER – SCS CURVE NUMBER

Existing and future land uses as well as hydrologic soil types were mapped throughout the entire watershed using GIS software. SCS curve numbers (secured from Table 2-2 of TR-55) were assigned to each combination of land use and hydrologic soil group. This matrix of land use and soil group was used to determine a composite curve number for each subwatershed. The composite curve numbers (existing and future) were used in HEC-HMS to model runoff from each subwatershed.

LAG TIME

Times of concentration were computed for each subwatershed as outlined in TR-55. Sheet flow, shallow concentrated flow, and channel flow were added to obtain the times of concentration. The lag time for each subwatershed is then calculated as 0.6 times the time of concentration (as suggested in Chapter 6 of HEC-HMS Technical Reference Manual). Basically speaking, the lag time is the time required for the centroid of the rainfall to exit each subwatershed.

REACH ROUTINGS

Stream channel reach routings and associated lag times were modeled using the Muskingum-Cunge 8-point method. In this method, the channel cross section is approximated by 8 data points, which define the width and depth of the main channel and overbank areas. Separate Manning's n values were input for the overbank areas and main channel to define the noted roughness characteristics of the stream and floodplain. The dimensions of the channel, as well as the roughness numbers, were derived from the measurements taken during the survey of significant obstructions. Channel lengths and elevation changes (both measured from USGS quad maps) between the beginning and end of the channel reaches were used to compute channel slopes. The HEC-HMS program then uses the 8-point section, roughness values, reach lengths, and channel slopes to compute the water elevations within the channel according to discharge. The reach routing calculations also account for channel and overbank storage, effectively modeling the attenuation of the flood wave due to floodplain storage.

2. MODEL CALIBRATION

Calibration of the hydrologic model involves comparison of the model output to measured streamflows. Three stream gages exist within the Cumberland County study area.

- USGS Gage No. 01570000, Conodoguinet Creek near Hogestown
- USGS Gage No. 01571500, Yellow Breeches Creek near Camp Hill
- USGS Gage No. 01569800, LeTort Spring Run near Carlisle

The annual maximum peak discharge data for each gage was downloaded and evaluated to determine the annual probabilities for each gage. The model was calibrated by pairing the probability of rainfall events with the probability of annual maximum peak flows (i.e. - the 2-year rainfall event was assumed to produce the 2-year peak discharge at the gage, the 5-year rainfall event was assumed to produce the 5-year peak discharge at the gage, etc.).

All model parameters (subwatershed areas, curve numbers, lag times, reach routing factors, precipitation data, etc.) were entered into the model, and a "first-run" was conducted. For select event probabilities (namely the 2-, 10-, 50-, and 100-year events), the computed discharge values for all subwatersheds and junctions were plotted against drainage area. These relations were then compared to the data from the USGS stream gages. However, these gages provide only two comparative points in the Conodoguinet Creek watershed and one point in the Yellow Breeches watershed. To supplement the gage data, USGS

regression equations were used. The StreamStats website (<http://water.usgs.gov/osw/streamstats/pennsylvania.html>) was utilized to determine these supplemental flood flow estimates from the equations published in U.S. Geological Survey Scientific Investigations Report (SIR) 2008-5102.

Several options for calibrating the model were considered.

- Adjustment of subwatershed lag times by a factor.
- Adjustment of subwatershed curve numbers by a constant.
- Adjustment of rainfall estimates.

It was decided that the rainfall depth estimates would not be adjusted. Therefore, the rainfall events were accepted as is.

The basin lag times were adjusted by a multiplication factor and the runoff curve numbers were adjusted by a constant until the model of the existing conditions approximated the gage data and regression predictions. A summary of the calibration modifications are included in the table below.

| WATERSHED | LAG TIME FACTOR | CONSTANT ADDED TO CURVE NUMBERS |
|-----------------------|-----------------|---------------------------------|
| Conodoguinet Creek | 2.0 | -7 |
| Yellow Breeches Creek | 3.0 | -10 |

As part of the Stormwater Management Plan preparation, the Qualified Professional shall not utilize the lag time adjustments and curve number changes tabulated above. The tabulated adjustments have been found to be appropriate for the macro-scale study of the Conodoguinet Creek and Yellow Breeches Creek watersheds. Stormwater Management Plans shall be prepared using the calculations prescribed within the ordinance with no calibration adjustments.

3. FUTURE CONDITIONS MODEL

Within the future conditions model, the calculated future curve numbers (modified by the same calibration procedure as used in the existing conditions model) were inserted within the model. No changes were made to the rainfall depths or the lag times for each subwatershed. The model was then executed, and comparisons were made between the existing and future models to determine the level of expected increases in peak discharge values within reaches and junctions.

4. FUTURE CONDITIONS MODEL, WITH STORMWATER CONTROLS

VOLUME CONTROL

In accordance with the ordinance, each subwatershed was modeled to remove the calculated amount of volume control. The volume control portion was calculated in accordance with the Design Storm Method (or CG-1 as stated in the PA Stormwater BMP Manual), due to its non-dependence on subwatershed area. CG-2 may only be applied for Regulated Activities that are less than or equal to an acre, whereas CG-1 applies to any size Regulated Activity.

Within the hydrologic model, the volume control is modeled as a diversion element that removes a specified volume of water from the runoff of the contributing subwatershed. The volume of water is calculated based upon the change in runoff of the 2-year rainfall, while considering all existing non-forested pervious areas and 20% of existing impervious areas to be meadow.

RELEASE RATE CONTROLS AND VERIFICATION

It was decided that one singular release rate would be established for the full spectrum of events within each subwatershed. Previous stormwater management plans within the study area and nearby watersheds have focused on establishing varying release rates for the different event probabilities, which has introduced unnecessary complexities into stormwater control design. This study for Cumberland County has focused on establishing appropriately sized and proportioned subwatersheds, along with relatively simple release rate districting.

As a start to the release rate assignment effort, the calibrated model of future conditions (with volume control included) was controlled using release rates of 100 (essentially, the “no increase in peak rate” condition, or “post- to pre-“). As expected, this resulted in increases in the peak discharge rates in portions of both the Conodoguinet Creek and Yellow Breeches Creek. New reduced release rates were prescribed to subwatersheds upstream of those junctions and reaches that experienced increases in their peak discharge values.

The models were then re-run for all rainfall events (2-, 5-, 10-, 25-, 50- and 100-year events). A few peak increases remained after the application of the new release rates. Those junctions and reaches that saw an increase as a result of the release rate application were re-analyzed, and release rates were adjusted in the contributing subwatersheds. The model of the future conditions controlled by the proposed release rates shows that the implementation of this stormwater management plan and associated ordinances will not adversely affect federal, state, and local flood control plans, programs, and facilities. According to the model, there will be no increase in the peak discharge of the 2-, 5-, 10-, 25-, 50- and 100-year events within any of the stream reaches within the study area if the proposed release rates (in conjunction with the prescribed volume controls) are fully enforced.

**APPENDIX E -
HYDROLOGICAL POINTS OF INTEREST**

**CONODOGUINET CREEK EXISTING CALIBRATED
MODEL RESULTS VERSUS FUTURE CONTROLLED (ADJUSTED)**

CURVE NUMBERS REDUCED BY 7

TIMES OF CONCENTRATION CHANGED BY FACTOR OF 2.0

2-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CC-01 | 192 | RS-CC-01 | 189 | -1.93% |
| CC-02 | 249 | RS-CC-02 | 246 | -1.17% |
| CC-03 | 215 | RS-CC-03 | 135 | -37.24% |
| CC-04 | 150 | RS-CC-04 | 150 | -0.47% |
| CC-05 | 117 | RS-CC-05 | 114 | -2.32% |
| CC-06 | 105 | RS-CC-06 | 105 | -0.48% |
| CC-07 | 53 | RS-CC-07 | 53 | -0.19% |
| CC-08 | 122 | RS-CC-08 | 120 | -1.23% |
| CC-09 | 113 | RS-CC-09 | 110 | -2.21% |
| CC-10 | 59 | RS-CC-10 | 59 | -1.02% |
| CC-11 | 221 | RS-CC-11 | 215 | -2.94% |
| CC-12 | 149 | RS-CC-12 | 144 | -3.68% |
| CC-13 | 119 | RS-CC-13 | 118 | -0.34% |
| CC-14 | 156 | RS-CC-14 | 155 | -0.39% |
| CC-15 | 246 | RS-CC-15 | 239 | -2.76% |
| CC-16 | 245 | RS-CC-16 | 241 | -1.71% |
| CC-17 | 281 | RS-CC-17 | 274 | -2.49% |
| CC-18 | 289 | RS-CC-18 | 244 | -18.49% |
| CC-19 | 238 | RS-CC-19 | 235 | -1.34% |
| CC-20 | 337 | RS-CC-20 | 324 | -3.91% |
| CC-21 | 288 | RS-CC-21 | 279 | -2.52% |
| CC-22 | 152 | RS-CC-22 | 150 | -1.18% |
| CC-23 | 112 | RS-CC-23 | 96 | -14.16% |
| CC-24 | 206 | RS-CC-24 | 205 | -0.39% |
| CC-25 | 130 | RS-CC-25 | 129 | -0.85% |
| CC-26 | 496 | RS-CC-26 | 486 | -1.86% |
| CC-27 | 226 | RS-CC-27 | 223 | -1.28% |
| CC-28 | 220 | RS-CC-28 | 219 | -0.45% |
| CC-29 | 117 | RS-CC-29 | 111 | -4.72% |
| HR-01 | 163 | RS-HR-01 | 162 | -0.31% |
| HR-02 | 67 | RS-HR-02 | 66 | -0.60% |
| HR-03 | 78 | RS-HR-03 | 76 | -0.26% |
| HR-04 | 63 | RS-HR-04 | 63 | -0.48% |
| HR-05 | 115 | RS-HR-05 | 115 | -0.35% |
| LSR-01 | 118 | RS-LSR-01 | 117 | -0.76% |
| LSR-02 | 109 | RS-LSR-02 | 108 | -0.73% |
| LSR-03 | 77 | RS-LSR-03 | 76 | -0.39% |
| LSR-04 | 186 | RS-LSR-04 | 185 | -0.54% |
| LSR-06 | 58 | RS-LSR-06 | 58 | -0.69% |
| LSR-07 | 91 | RS-LSR-07 | 91 | -0.22% |
| LSR-08 | 215 | RS-LSR-08 | 203 | -5.68% |
| LSR-09 | 116 | RS-LSR-09 | 110 | -5.15% |
| TSR-01 | 238 | RS-TSR-01 | 237 | -0.46% |
| TSR-02 | 136 | RS-TSR-02 | 136 | -0.22% |
| TSR-03 | 156 | RS-TSR-03 | 154 | -0.71% |
| TSR-04 | 100 | RS-TSR-04 | 99 | -0.90% |
| Upper CC | 4816 | RS-UCC | 4605 | -4.36% |
| Alex Sp | 151 | RS-AS | 145 | -3.92% |

5-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CC-01 | 354 | RS-CC-01 | 348 | -1.53% |
| CC-02 | 405 | RS-CC-02 | 402 | -0.76% |
| CC-03 | 451 | RS-CC-03 | 392 | -13.03% |
| CC-04 | 279 | RS-CC-04 | 278 | -0.47% |
| CC-05 | 217 | RS-CC-05 | 215 | -1.20% |
| CC-06 | 191 | RS-CC-06 | 190 | -0.42% |
| CC-07 | 93 | RS-CC-07 | 92 | -0.22% |
| CC-08 | 241 | RS-CC-08 | 237 | -1.45% |
| CC-09 | 225 | RS-CC-09 | 220 | -2.09% |
| CC-10 | 107 | RS-CC-10 | 105 | -1.13% |
| CC-11 | 455 | RS-CC-11 | 445 | -2.22% |
| CC-12 | 317 | RS-CC-12 | 310 | -2.27% |
| CC-13 | 213 | RS-CC-13 | 212 | -0.33% |
| CC-14 | 284 | RS-CC-14 | 283 | -0.42% |
| CC-15 | 489 | RS-CC-15 | 479 | -1.96% |
| CC-16 | 504 | RS-CC-16 | 497 | -1.49% |
| CC-17 | 543 | RS-CC-17 | 532 | -2.01% |
| CC-18 | 492 | RS-CC-18 | 420 | -14.60% |
| CC-19 | 445 | RS-CC-19 | 440 | -1.10% |
| CC-20 | 557 | RS-CC-20 | 536 | -3.68% |
| CC-21 | 504 | RS-CC-21 | 493 | -2.01% |
| CC-22 | 347 | RS-CC-22 | 342 | -1.38% |
| CC-23 | 176 | RS-CC-23 | 156 | -11.41% |
| CC-24 | 355 | RS-CC-24 | 353 | -0.37% |
| CC-25 | 226 | RS-CC-25 | 225 | -0.80% |
| CC-26 | 846 | RS-CC-26 | 832 | -1.63% |
| CC-27 | 483 | RS-CC-27 | 475 | -1.59% |
| CC-28 | 384 | RS-CC-28 | 380 | -1.07% |
| CC-29 | 209 | RS-CC-29 | 201 | -3.97% |
| HR-01 | 294 | RS-HR-01 | 293 | -0.37% |
| HR-02 | 130 | RS-HR-02 | 129 | -0.54% |
| HR-03 | 144 | RS-HR-03 | 144 | -0.21% |
| HR-04 | 119 | RS-HR-04 | 119 | -0.50% |
| HR-05 | 225 | RS-HR-05 | 224 | -0.53% |
| LSR-01 | 193 | RS-LSR-01 | 192 | -0.67% |
| LSR-02 | 205 | RS-LSR-02 | 203 | -0.73% |
| LSR-03 | 137 | RS-LSR-03 | 136 | -0.51% |
| LSR-04 | 325 | RS-LSR-04 | 324 | -0.49% |
| LSR-06 | 118 | RS-LSR-06 | 117 | -0.85% |
| LSR-07 | 167 | RS-LSR-07 | 167 | -0.24% |
| LSR-08 | 430 | RS-LSR-08 | 404 | -5.96% |
| LSR-09 | 224 | RS-LSR-09 | 212 | -5.36% |
| TSR-01 | 438 | RS-TSR-01 | 435 | -0.57% |
| TSR-02 | 244 | RS-TSR-02 | 243 | -0.29% |
| TSR-03 | 282 | RS-TSR-03 | 280 | -0.71% |
| TSR-04 | 197 | RS-TSR-04 | 195 | -1.17% |
| Upper CC | 7887 | RS-UCC | 7520 | -4.66% |
| Alex Sp | 340 | RS-AS | 324 | -4.62% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CC-01 | 4871 | J-CC-01 | 4668 | -4.17% |
| J-CC-02 | 4861 | J-CC-02 | 4665 | -4.04% |
| J-CC-03 | 4855 | J-CC-03 | 4661 | -4.01% |
| J-CC-04 | 4861 | J-CC-04 | 4663 | -4.06% |
| J-CC-05 | 4872 | J-CC-05 | 4675 | -4.04% |
| J-CC-06 | 4940 | J-CC-06 | 4749 | -3.87% |
| J-CC-07 | 4950 | J-CC-07 | 4758 | -3.87% |
| J-CC-08 | 4939 | J-CC-08 | 4749 | -3.85% |
| J-CC-09 | 4944 | J-CC-09 | 4749 | -3.95% |
| J-CC-10 | 4955 | J-CC-10 | 4757 | -3.99% |
| J-CC-11 | 4935 | J-CC-11 | 4680 | -5.16% |
| J-CC-12 | 4976 | J-CC-12 | 4706 | -5.41% |
| J-CC-13 | 5013 | J-CC-13 | 4688 | -6.53% |
| J-CC-14 | 5015 | J-CC-14 | 4639 | -7.50% |
| J-CC-15 | 4865 | J-CC-15 | 4126 | -15.20% |
| J-CC-16 | 4849 | J-CC-16 | 3613 | -25.49% |
| J-CC-17 | 4835 | J-CC-17 | 3304 | -31.68% |
| J-HR-01 | 78 | J-HR-01 | 78 | -0.26% |
| J-HR-02 | 115 | J-HR-02 | 115 | -0.35% |
| J-HR-03 | 256 | J-HR-03 | 220 | -14.20% |
| J-LSR-01 | 278 | J-LSR-01 | 278 | -0.61% |
| J-LSR-02 | 383 | J-LSR-02 | 342 | -5.73% |
| J-LSR-03 | 528 | J-LSR-03 | 480 | -8.80% |
| J-LSR-04 | 632 | J-LSR-04 | 605 | -4.27% |
| J-TSR-01 | 100 | J-TSR-01 | 99 | -0.90% |
| J-TSR-02 | 284 | J-TSR-02 | 261 | -8.03% |
| J-SUB1-CC | 226 | J-SUB1-CC | 223 | -1.28% |
| J-SUB2-CC | 152 | J-SUB2-CC | 150 | -1.18% |
| J-SUB3-CC | 105 | J-SUB3-CC | 105 | -0.48% |
| R-CC-01 | 4815 | R-CC-01 | 4604 | -4.38% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CC-01 | 7962 | J-CC-01 | 7817 | -4.33% |
| J-CC-02 | 7912 | J-CC-02 | 7587 | -4.11% |
| J-CC-03 | 7895 | J-CC-03 | 7574 | -4.06% |
| J-CC-04 | 7892 | J-CC-04 | 7570 | -4.08% |
| J-CC-05 | 7899 | J-CC-05 | 7578 | -4.06% |
| J-CC-06 | 7968 | J-CC-06 | 7659 | -3.88% |
| J-CC-07 | 7977 | J-CC-07 | 7667 | -3.88% |
| J-CC-08 | 7951 | J-CC-08 | 7647 | -3.83% |
| J-CC-09 | 7955 | J-CC-09 | 7651 | -3.82% |
| J-CC-10 | 7965 | J-CC-10 | 7661 | -3.82% |
| J-CC-11 | 7915 | J-CC-11 | 7611 | -3.84% |
| J-CC-12 | 7961 | J-CC-12 | 7663 | -3.74% |
| J-CC-13 | 8002 | J-CC-13 | 7681 | -4.00% |
| J-CC-14 | 8002 | J-CC-14 | 7658 | -4.32% |
| J-CC-15 | 7774 | J-CC-15 | 7198 | -7.41% |
| J-CC-16 | 7740 | J-CC-16 | 6784 | -12.35% |
| J-CC-17 | 7749 | J-CC-17 | 6548 | -15.50% |
| J-HR-01 | 144 | J-HR-01 | 144 | -0.21% |
| J-HR-02 | 225 | J-HR-02 | 224 | -0.53% |
| J-HR-03 | 485 | J-HR-03 | 413 | -14.79% |
| J-LSR-01 | 547 | J-LSR-01 | 517 | -5.50% |
| J-LSR-02 | 711 | J-LSR-02 | 642 | -9.67% |
| J-LSR-03 | 989 | J-LSR-03 | 891 | -9.89% |
| J-LSR-04 | 1180 | J-LSR-04 | 1138 | -3.58% |
| J-TSR-01 | 197 | J-TSR-01 | 195 | -1.17% |
| J-TSR-02 | 515 | J-TSR-02 | 460 | -10.61% |
| J-SUB1-CC | 483 | J-SUB1-CC | 475 | -1.59% |
| J-SUB2-CC | 347 | J-SUB2-CC | 342 | -1.38% |
| J-SUB3-CC | 191 | J-SUB3-CC | 190 | -0.42% |
| R-CC-01 | 7884 | R-CC-01 | 7518 | -4.65% |

**CONODOGUINET CREEK EXISTING CALIBRATED
MODEL RESULTS VERSUS FUTURE CONTROLLED (ADJUSTED)**

CURVE NUMBERS REDUCED BY 7

TIMES OF CONCENTRATION CHANGED BY FACTOR OF 2.0

10-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CC-01 | 520 | RS-CC-01 | 508 | -2.21% |
| CC-02 | 557 | RS-CC-02 | 554 | -0.66% |
| CC-03 | 712 | RS-CC-03 | 676 | -5.04% |
| CC-04 | 415 | RS-CC-04 | 410 | -1.11% |
| CC-05 | 322 | RS-CC-05 | 319 | -1.09% |
| CC-06 | 281 | RS-CC-06 | 276 | -1.85% |
| CC-07 | 133 | RS-CC-07 | 131 | -1.65% |
| CC-08 | 369 | RS-CC-08 | 355 | -3.82% |
| CC-09 | 345 | RS-CC-09 | 333 | -3.71% |
| CC-10 | 155 | RS-CC-10 | 152 | -2.51% |
| CC-11 | 708 | RS-CC-11 | 688 | -2.82% |
| CC-12 | 503 | RS-CC-12 | 491 | -2.27% |
| CC-13 | 311 | RS-CC-13 | 306 | -1.74% |
| CC-14 | 419 | RS-CC-14 | 409 | -2.41% |
| CC-15 | 748 | RS-CC-15 | 730 | -2.43% |
| CC-16 | 789 | RS-CC-16 | 769 | -2.60% |
| CC-17 | 818 | RS-CC-17 | 793 | -3.05% |
| CC-18 | 677 | RS-CC-18 | 594 | -12.26% |
| CC-19 | 862 | RS-CC-19 | 849 | -1.98% |
| CC-20 | 770 | RS-CC-20 | 743 | -3.56% |
| CC-21 | 720 | RS-CC-21 | 703 | -2.36% |
| CC-22 | 573 | RS-CC-22 | 552 | -3.68% |
| CC-23 | 238 | RS-CC-23 | 215 | -9.80% |
| CC-24 | 506 | RS-CC-24 | 499 | -1.42% |
| CC-25 | 324 | RS-CC-25 | 318 | -1.85% |
| CC-26 | 1191 | RS-CC-26 | 1162 | -2.40% |
| CC-27 | 768 | RS-CC-27 | 755 | -1.70% |
| CC-28 | 550 | RS-CC-28 | 542 | -1.42% |
| CC-29 | 302 | RS-CC-29 | 291 | -3.61% |
| HR-01 | 432 | RS-HR-01 | 421 | -2.50% |
| HR-02 | 198 | RS-HR-02 | 196 | -1.41% |
| HR-03 | 215 | RS-HR-03 | 209 | -2.66% |
| HR-04 | 180 | RS-HR-04 | 175 | -2.56% |
| HR-05 | 345 | RS-HR-05 | 332 | -3.66% |
| LSR-01 | 267 | RS-LSR-01 | 262 | -1.58% |
| LSR-02 | 306 | RS-LSR-02 | 297 | -2.84% |
| LSR-03 | 199 | RS-LSR-03 | 194 | -2.41% |
| LSR-04 | 467 | RS-LSR-04 | 459 | -1.84% |
| LSR-06 | 185 | RS-LSR-06 | 179 | -2.98% |
| LSR-07 | 249 | RS-LSR-07 | 242 | -2.57% |
| LSR-08 | 663 | RS-LSR-08 | 607 | -8.49% |
| LSR-09 | 340 | RS-LSR-09 | 315 | -7.15% |
| TSR-01 | 647 | RS-TSR-01 | 630 | -2.69% |
| TSR-02 | 357 | RS-TSR-02 | 348 | -2.52% |
| TSR-03 | 412 | RS-TSR-03 | 407 | -1.36% |
| TSR-04 | 302 | RS-TSR-04 | 291 | -3.74% |
| Upper CC | 10999 | RS-UCC | 10467 | -4.84% |
| Alex Sp | 575 | RS-AS | 536 | -6.54% |

25-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CC-01 | 812 | RS-CC-01 | 799 | -1.59% |
| CC-02 | 813 | RS-CC-02 | 806 | -0.93% |
| CC-03 | 1194 | RS-CC-03 | 1170 | -1.95% |
| CC-04 | 658 | RS-CC-04 | 646 | -1.78% |
| CC-05 | 509 | RS-CC-05 | 495 | -2.69% |
| CC-06 | 443 | RS-CC-06 | 441 | -0.47% |
| CC-07 | 206 | RS-CC-07 | 205 | -0.53% |
| CC-08 | 601 | RS-CC-08 | 569 | -5.18% |
| CC-09 | 560 | RS-CC-09 | 537 | -4.16% |
| CC-10 | 241 | RS-CC-10 | 231 | -4.19% |
| CC-11 | 1169 | RS-CC-11 | 1145 | -2.07% |
| CC-12 | 843 | RS-CC-12 | 822 | -2.53% |
| CC-13 | 488 | RS-CC-13 | 486 | -0.45% |
| CC-14 | 662 | RS-CC-14 | 651 | -1.63% |
| CC-15 | 1215 | RS-CC-15 | 1191 | -1.91% |
| CC-16 | 1313 | RS-CC-16 | 1279 | -2.59% |
| CC-17 | 1305 | RS-CC-17 | 1259 | -3.52% |
| CC-18 | 989 | RS-CC-18 | 891 | -9.91% |
| CC-19 | 1049 | RS-CC-19 | 1034 | -1.48% |
| CC-20 | 1129 | RS-CC-20 | 1091 | -3.36% |
| CC-21 | 1093 | RS-CC-21 | 1071 | -1.99% |
| CC-22 | 1008 | RS-CC-22 | 967 | -4.02% |
| CC-23 | 341 | RS-CC-23 | 314 | -7.93% |
| CC-24 | 773 | RS-CC-24 | 769 | -0.53% |
| CC-25 | 492 | RS-CC-25 | 477 | -3.15% |
| CC-26 | 1775 | RS-CC-26 | 1743 | -1.85% |
| CC-27 | 1294 | RS-CC-27 | 1271 | -1.79% |
| CC-28 | 836 | RS-CC-28 | 822 | -1.66% |
| CC-29 | 462 | RS-CC-29 | 448 | -3.01% |
| HR-01 | 681 | RS-HR-01 | 645 | -5.33% |
| HR-02 | 324 | RS-HR-02 | 322 | -0.65% |
| HR-03 | 345 | RS-HR-03 | 344 | -0.29% |
| HR-04 | 291 | RS-HR-04 | 289 | -0.62% |
| HR-05 | 566 | RS-HR-05 | 540 | -4.70% |
| LSR-01 | 392 | RS-LSR-01 | 382 | -2.53% |
| LSR-02 | 489 | RS-LSR-02 | 484 | -1.00% |
| LSR-03 | 310 | RS-LSR-03 | 302 | -2.80% |
| LSR-04 | 719 | RS-LSR-04 | 710 | -1.29% |
| LSR-06 | 309 | RS-LSR-06 | 301 | -2.62% |
| LSR-07 | 397 | RS-LSR-07 | 396 | -0.30% |
| LSR-08 | 1089 | RS-LSR-08 | 961 | -11.78% |
| LSR-09 | 553 | RS-LSR-09 | 501 | -9.38% |
| TSR-01 | 1024 | RS-TSR-01 | 1009 | -1.43% |
| TSR-02 | 560 | RS-TSR-02 | 557 | -0.52% |
| TSR-03 | 641 | RS-TSR-03 | 629 | -2.01% |
| TSR-04 | 492 | RS-TSR-04 | 480 | -2.44% |
| Upper CC | 16460 | RS-UCC | 15652 | -4.90% |
| Alex Sp | 1055 | RS-AS | 1001 | -5.10% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CC-01 | 11093 | J-CC-01 | 10602 | -4.43% |
| J-CC-02 | 11012 | J-CC-02 | 10547 | -4.23% |
| J-CC-03 | 10981 | J-CC-03 | 10522 | -4.18% |
| J-CC-04 | 10972 | J-CC-04 | 10508 | -4.23% |
| J-CC-05 | 10974 | J-CC-05 | 10512 | -4.22% |
| J-CC-06 | 11049 | J-CC-06 | 10601 | -4.06% |
| J-CC-07 | 11057 | J-CC-07 | 10609 | -4.05% |
| J-CC-08 | 11015 | J-CC-08 | 10571 | -4.03% |
| J-CC-09 | 11017 | J-CC-09 | 10573 | -4.03% |
| J-CC-10 | 11028 | J-CC-10 | 10584 | -4.02% |
| J-CC-11 | 10948 | J-CC-11 | 10509 | -4.01% |
| J-CC-12 | 10999 | J-CC-12 | 10578 | -3.83% |
| J-CC-13 | 11045 | J-CC-13 | 10629 | -3.77% |
| J-CC-14 | 11043 | J-CC-14 | 10619 | -3.84% |
| J-CC-15 | 10734 | J-CC-15 | 10159 | -5.36% |
| J-CC-16 | 10680 | J-CC-16 | 9780 | -8.42% |
| J-CC-17 | 10688 | J-CC-17 | 9573 | -10.43% |
| J-HR-01 | 215 | J-HR-01 | 209 | -2.66% |
| J-HR-02 | 345 | J-HR-02 | 332 | -3.66% |
| J-HR-03 | 732 | J-HR-03 | 610 | -16.71% |
| J-LSR-01 | 838 | J-LSR-01 | 772 | -7.87% |
| J-LSR-02 | 1085 | J-LSR-02 | 959 | -11.65% |
| J-LSR-03 | 1462 | J-LSR-03 | 1292 | -11.61% |
| J-LSR-04 | 1746 | J-LSR-04 | 1673 | -4.19% |
| J-TSR-01 | 302 | J-TSR-01 | 291 | -3.74% |
| J-TSR-02 | 758 | J-TSR-02 | 667 | -11.99% |
| J-SUB1-CC | 768 | J-SUB1-CC | 755 | -1.70% |
| J-SUB2-CC | 573 | J-SUB2-CC | 552 | -3.68% |
| J-SUB3-CC | 281 | J-SUB3-CC | 276 | -1.85% |
| R-CC-01 | 10992 | R-CC-01 | 10463 | -4.81% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CC-01 | 16587 | J-CC-01 | 15845 | -4.47% |
| J-CC-02 | 16452 | J-CC-02 | 15759 | -4.21% |
| J-CC-03 | 16403 | J-CC-03 | 15723 | -4.15% |
| J-CC-04 | 16388 | J-CC-04 | 15701 | -4.18% |
| J-CC-05 | 16381 | J-CC-05 | 15700 | -4.16% |
| J-CC-06 | 16467 | J-CC-06 | 15807 | -4.01% |
| J-CC-07 | 16472 | J-CC-07 | 15813 | -4.00% |
| J-CC-08 | 16406 | J-CC-08 | 15756 | -3.96% |
| J-CC-09 | 16404 | J-CC-09 | 15755 | -3.96% |
| J-CC-10 | 16416 | J-CC-10 | 15767 | -3.95% |
| J-CC-11 | 16292 | J-CC-11 | 15653 | -3.92% |
| J-CC-12 | 16357 | J-CC-12 | 15744 | -3.75% |
| J-CC-13 | 16412 | J-CC-13 | 15807 | -3.68% |
| J-CC-14 | 16407 | J-CC-14 | 15803 | -3.68% |
| J-CC-15 | 16003 | J-CC-15 | 15353 | -4.06% |
| J-CC-16 | 15917 | J-CC-16 | 15108 | -5.08% |
| J-CC-17 | 15924 | J-CC-17 | 14967 | -6.01% |
| J-HR-01 | 345 | J-HR-01 | 344 | -0.29% |
| J-HR-02 | 588 | J-HR-02 | 540 | -4.70% |
| J-HR-03 | 1183 | J-HR-03 | 984 | -16.85% |
| J-LSR-01 | 1370 | J-LSR-01 | 1221 | -10.88% |
| J-LSR-02 | 1772 | J-LSR-02 | 1528 | -13.74% |
| J-LSR-03 | 2319 | J-LSR-03 | 2031 | -12.42% |
| J-LSR-04 | 2773 | J-LSR-04 | 2613 | -5.77% |
| J-TSR-01 | 492 | J-TSR-01 | 480 | -2.44% |
| J-TSR-02 | 1199 | J-TSR-02 | 1054 | -12.10% |
| J-SUB1-CC | 1294 | J-SUB1-CC | 1271 | -1.79% |
| J-SUB2-CC | 1008 | J-SUB2-CC | 967 | -4.02% |
| J-SUB3-CC | 443 | J-SUB3-CC | 441 | -0.47% |
| R-CC-01 | 16442 | R-CC-01 | 15647 | -4.84% |

**CONODOGUINET CREEK EXISTING CALIBRATED
MODEL RESULTS VERSUS FUTURE CONTROLLED (ADJUSTED)**

CURVE NUMBERS REDUCED BY 7
TIMES OF CONCENTRATION CHANGED BY FACTOR OF 2.0

50-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CC-01 | 1100 | RS-CC-01 | 1078 | -2.04% |
| CC-02 | 1060 | RS-CC-02 | 1047 | -1.23% |
| CC-03 | 1686 | RS-CC-03 | 1650 | -2.12% |
| CC-04 | 902 | RS-CC-04 | 898 | -0.42% |
| CC-05 | 696 | RS-CC-05 | 663 | -4.76% |
| CC-06 | 607 | RS-CC-06 | 599 | -1.33% |
| CC-07 | 280 | RS-CC-07 | 279 | -0.29% |
| CC-08 | 834 | RS-CC-08 | 820 | -1.66% |
| CC-09 | 776 | RS-CC-09 | 757 | -2.40% |
| CC-10 | 325 | RS-CC-10 | 319 | -1.84% |
| CC-11 | 1635 | RS-CC-11 | 1597 | -2.30% |
| CC-12 | 1193 | RS-CC-12 | 1160 | -2.77% |
| CC-13 | 668 | RS-CC-13 | 661 | -0.94% |
| CC-14 | 909 | RS-CC-14 | 904 | -0.60% |
| CC-15 | 1684 | RS-CC-15 | 1647 | -2.18% |
| CC-16 | 1850 | RS-CC-16 | 1822 | -1.49% |
| CC-17 | 1792 | RS-CC-17 | 1756 | -1.98% |
| CC-18 | 1288 | RS-CC-18 | 1179 | -8.46% |
| CC-19 | 1437 | RS-CC-19 | 1420 | -1.16% |
| CC-20 | 1474 | RS-CC-20 | 1426 | -3.24% |
| CC-21 | 1455 | RS-CC-21 | 1427 | -1.95% |
| CC-22 | 1467 | RS-CC-22 | 1443 | -1.64% |
| CC-23 | 438 | RS-CC-23 | 409 | -6.80% |
| CC-24 | 1039 | RS-CC-24 | 1034 | -0.46% |
| CC-25 | 658 | RS-CC-25 | 653 | -0.85% |
| CC-26 | 2343 | RS-CC-26 | 2308 | -1.51% |
| CC-27 | 1833 | RS-CC-27 | 1801 | -1.75% |
| CC-28 | 1117 | RS-CC-28 | 1097 | -1.80% |
| CC-29 | 619 | RS-CC-29 | 602 | -2.76% |
| HR-01 | 933 | RS-HR-01 | 926 | -0.78% |
| HR-02 | 452 | RS-HR-02 | 448 | -0.84% |
| HR-03 | 479 | RS-HR-03 | 474 | -1.00% |
| HR-04 | 404 | RS-HR-04 | 402 | -0.57% |
| HR-05 | 796 | RS-HR-05 | 786 | -0.99% |
| LSR-01 | 513 | RS-LSR-01 | 510 | -0.62% |
| LSR-02 | 674 | RS-LSR-02 | 665 | -1.22% |
| LSR-03 | 422 | RS-LSR-03 | 419 | -0.55% |
| LSR-04 | 969 | RS-LSR-04 | 964 | -0.58% |
| LSR-06 | 438 | RS-LSR-06 | 433 | -1.10% |
| LSR-07 | 550 | RS-LSR-07 | 541 | -1.62% |
| LSR-08 | 1522 | RS-LSR-08 | 1413 | -7.14% |
| LSR-09 | 771 | RS-LSR-09 | 723 | -6.20% |
| TSR-01 | 1405 | RS-TSR-01 | 1396 | -0.62% |
| TSR-02 | 768 | RS-TSR-02 | 764 | -0.44% |
| TSR-03 | 868 | RS-TSR-03 | 861 | -0.82% |
| TSR-04 | 685 | RS-TSR-04 | 676 | -1.30% |
| Upper CC | 21891 | RS-UCC | 20754 | -5.20% |
| Alex Sp | 1588 | RS-AS | 1484 | -6.57% |

100-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CC-01 | 1457 | RS-CC-01 | 1413 | -3.05% |
| CC-02 | 1358 | RS-CC-02 | 1337 | -1.52% |
| CC-03 | 2309 | RS-CC-03 | 2236 | -3.19% |
| CC-04 | 1207 | RS-CC-04 | 1201 | -0.52% |
| CC-05 | 928 | RS-CC-05 | 912 | -1.68% |
| CC-06 | 814 | RS-CC-06 | 794 | -2.51% |
| CC-07 | 373 | RS-CC-07 | 369 | -1.29% |
| CC-08 | 1128 | RS-CC-08 | 1109 | -1.53% |
| CC-09 | 1046 | RS-CC-09 | 1017 | -2.71% |
| CC-10 | 430 | RS-CC-10 | 425 | -1.02% |
| CC-11 | 2218 | RS-CC-11 | 2151 | -2.99% |
| CC-12 | 1632 | RS-CC-12 | 1568 | -3.89% |
| CC-13 | 894 | RS-CC-13 | 872 | -2.45% |
| CC-14 | 1221 | RS-CC-14 | 1207 | -1.11% |
| CC-15 | 2269 | RS-CC-15 | 2198 | -3.15% |
| CC-16 | 2527 | RS-CC-16 | 2482 | -1.79% |
| CC-17 | 2395 | RS-CC-17 | 2341 | -2.25% |
| CC-18 | 1648 | RS-CC-18 | 1530 | -7.14% |
| CC-19 | 1919 | RS-CC-19 | 1884 | -1.82% |
| CC-20 | 1892 | RS-CC-20 | 1832 | -3.16% |
| CC-21 | 1898 | RS-CC-21 | 1848 | -2.60% |
| CC-22 | 2056 | RS-CC-22 | 2021 | -1.72% |
| CC-23 | 556 | RS-CC-23 | 524 | -5.77% |
| CC-24 | 1370 | RS-CC-24 | 1355 | -1.08% |
| CC-25 | 862 | RS-CC-25 | 855 | -0.81% |
| CC-26 | 3033 | RS-CC-26 | 2969 | -2.10% |
| CC-27 | 2513 | RS-CC-27 | 2468 | -1.78% |
| CC-28 | 1463 | RS-CC-28 | 1435 | -1.91% |
| CC-29 | 811 | RS-CC-29 | 790 | -2.61% |
| HR-01 | 1251 | RS-HR-01 | 1244 | -0.58% |
| HR-02 | 614 | RS-HR-02 | 607 | -1.11% |
| HR-03 | 650 | RS-HR-03 | 633 | -2.62% |
| HR-04 | 548 | RS-HR-04 | 541 | -1.30% |
| HR-05 | 1088 | RS-HR-05 | 1077 | -0.96% |
| LSR-01 | 660 | RS-LSR-01 | 655 | -0.83% |
| LSR-02 | 905 | RS-LSR-02 | 883 | -2.40% |
| LSR-03 | 561 | RS-LSR-03 | 556 | -0.78% |
| LSR-04 | 1280 | RS-LSR-04 | 1263 | -1.32% |
| LSR-06 | 602 | RS-LSR-06 | 591 | -1.78% |
| LSR-07 | 744 | RS-LSR-07 | 717 | -3.67% |
| LSR-08 | 2067 | RS-LSR-08 | 1936 | -6.35% |
| LSR-09 | 1048 | RS-LSR-09 | 990 | -5.57% |
| TSR-01 | 1882 | RS-TSR-01 | 1860 | -1.17% |
| TSR-02 | 1030 | RS-TSR-02 | 1018 | -1.34% |
| TSR-03 | 1149 | RS-TSR-03 | 1139 | -0.85% |
| TSR-04 | 926 | RS-TSR-04 | 910 | -1.77% |
| Upper CC | 28657 | RS-UCC | 27241 | -4.94% |
| Alex Sp | 2308 | RS-AS | 2176 | -5.72% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CC-01 | 22057 | J-CC-01 | 20999 | -4.79% |
| J-CC-02 | 21866 | J-CC-02 | 20878 | -4.61% |
| J-CC-03 | 21818 | J-CC-03 | 20826 | -4.54% |
| J-CC-04 | 21793 | J-CC-04 | 20793 | -4.59% |
| J-CC-05 | 21779 | J-CC-05 | 20784 | -4.57% |
| J-CC-06 | 21878 | J-CC-06 | 20905 | -4.45% |
| J-CC-07 | 21882 | J-CC-07 | 20910 | -4.44% |
| J-CC-08 | 21792 | J-CC-08 | 20830 | -4.41% |
| J-CC-09 | 21786 | J-CC-09 | 20825 | -4.41% |
| J-CC-10 | 21799 | J-CC-10 | 20838 | -4.41% |
| J-CC-11 | 21630 | J-CC-11 | 20683 | -4.38% |
| J-CC-12 | 21712 | J-CC-12 | 20796 | -4.22% |
| J-CC-13 | 21777 | J-CC-13 | 20870 | -4.16% |
| J-CC-14 | 21770 | J-CC-14 | 20864 | -4.16% |
| J-CC-15 | 21283 | J-CC-15 | 20337 | -4.45% |
| J-CC-16 | 21165 | J-CC-16 | 20199 | -4.57% |
| J-CC-17 | 21172 | J-CC-17 | 20134 | -4.90% |
| J-HR-01 | 479 | J-HR-01 | 474 | -1.00% |
| J-HR-02 | 796 | J-HR-02 | 789 | -0.89% |
| J-HR-03 | 1650 | J-HR-03 | 1426 | -13.56% |
| J-LSR-01 | 1915 | J-LSR-01 | 1715 | -10.44% |
| J-LSR-02 | 2478 | J-LSR-02 | 2145 | -13.43% |
| J-LSR-03 | 3192 | J-LSR-03 | 2803 | -12.19% |
| J-LSR-04 | 3851 | J-LSR-04 | 3616 | -6.12% |
| J-TSR-01 | 685 | J-TSR-01 | 676 | -1.30% |
| J-TSR-02 | 1665 | J-TSR-02 | 1492 | -10.39% |
| J-SUB1-CC | 1833 | J-SUB1-CC | 1801 | -1.75% |
| J-SUB2-CC | 1467 | J-SUB2-CC | 1443 | -1.64% |
| J-SUB3-CC | 607 | J-SUB3-CC | 599 | -1.33% |
| R-CC-01 | 21866 | R-CC-01 | 20746 | -5.12% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CC-01 | 28872 | J-CC-01 | 27555 | -4.56% |
| J-CC-02 | 28667 | J-CC-02 | 27406 | -4.40% |
| J-CC-03 | 28573 | J-CC-03 | 27340 | -4.31% |
| J-CC-04 | 28546 | J-CC-04 | 27303 | -4.36% |
| J-CC-05 | 28526 | J-CC-05 | 27289 | -4.34% |
| J-CC-06 | 28660 | J-CC-06 | 27447 | -4.23% |
| J-CC-07 | 28663 | J-CC-07 | 27451 | -4.23% |
| J-CC-08 | 28535 | J-CC-08 | 27338 | -4.20% |
| J-CC-09 | 28525 | J-CC-09 | 27329 | -4.19% |
| J-CC-10 | 28541 | J-CC-10 | 27344 | -4.19% |
| J-CC-11 | 28328 | J-CC-11 | 27141 | -4.18% |
| J-CC-12 | 28432 | J-CC-12 | 27287 | -4.03% |
| J-CC-13 | 28515 | J-CC-13 | 27376 | -3.99% |
| J-CC-14 | 28505 | J-CC-14 | 27367 | -3.98% |
| J-CC-15 | 27923 | J-CC-15 | 26724 | -4.29% |
| J-CC-16 | 27764 | J-CC-16 | 26564 | -4.32% |
| J-CC-17 | 27769 | J-CC-17 | 26589 | -4.32% |
| J-HR-01 | 650 | J-HR-01 | 633 | -2.62% |
| J-HR-02 | 1088 | J-HR-02 | 1077 | -0.96% |
| J-HR-03 | 2248 | J-HR-03 | 1969 | -12.41% |
| J-LSR-01 | 2606 | J-LSR-01 | 2333 | -10.49% |
| J-LSR-02 | 3376 | J-LSR-02 | 2914 | -13.69% |
| J-LSR-03 | 4286 | J-LSR-03 | 3731 | -13.00% |
| J-LSR-04 | 5212 | J-LSR-04 | 4863 | -6.66% |
| J-TSR-01 | 926 | J-TSR-01 | 910 | -1.77% |
| J-TSR-02 | 2239 | J-TSR-02 | 2023 | -9.61% |
| J-SUB1-CC | 2513 | J-SUB1-CC | 2468 | -1.78% |
| J-SUB2-CC | 2056 | J-SUB2-CC | 2021 | -1.72% |
| J-SUB3-CC | 814 | J-SUB3-CC | 794 | -2.51% |
| R-CC-01 | 28623 | R-CC-01 | 27231 | -4.86% |

YELLOW BREECHES CREEK EXISTING CALIBRATED MODEL RESULTS VERSUS FUTURE CONTROLLED (ADJUSTED)

CURVE NUMBERS REDUCED BY 10

TIMES OF CONCENTRATION CHANGED BY A FACTOR OF 3.0

2-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CR-01 | 35 | RS-CR-01 | 35 | -0.85% |
| CR-02 | 115 | RS-CR-02 | 114 | -0.52% |
| CR-03 | 119 | RS-CR-03 | 119 | 0.00% |
| CR-04 | 56 | RS-CR-04 | 55 | -1.25% |
| CR-05 | 72 | RS-CR-05 | 54 | -24.86% |
| CR-06 | 150 | RS-CR-06 | 114 | -24.05% |
| CR-07 | 77 | RS-CR-07 | 73 | -4.30% |
| DR-01 | 79 | RS-DR-01 | 78 | -0.76% |
| DR-02 | 107 | RS-DR-02 | 80 | -25.14% |
| DR-03 | 29 | RS-DR-03 | 29 | 0.00% |
| OTR-01 | 27 | RS-OTR-01 | 27 | -1.48% |
| OTR-02 | 18 | RS-OTR-02 | 18 | -2.72% |
| OTR-03 | 11 | RS-OTR-03 | 11 | -4.76% |
| OTR-04 | 48 | RS-OTR-04 | 46 | -3.36% |
| SR-01 | 77 | RS-SR-01 | 76 | -1.56% |
| SR-02 | 142 | RS-SR-02 | 109 | -23.67% |
| SR-03 | 113 | RS-SR-03 | 88 | -22.04% |
| YBC-01 | 53 | RS-YBC-01 | 53 | -1.50% |
| YBC-02 | 131 | RS-YBC-02 | 125 | -4.37% |
| YBC-03 | 94 | RS-YBC-03 | 45 | -51.66% |
| YBC-04 | 201 | RS-YBC-04 | 200 | -0.40% |
| YBC-05 | 34 | RS-YBC-05 | 34 | -1.19% |
| YBC-06 | 13 | RS-YBC-06 | 13 | 0.00% |
| YBC-07 | 51 | RS-YBC-07 | 51 | -0.97% |
| YBC-08 | 82 | RS-YBC-08 | 64 | -22.94% |
| YBC-09 | 194 | RS-YBC-09 | 148 | -23.54% |
| YBC-10 | 164 | RS-YBC-10 | 162 | -0.98% |
| YBC-11 | 90 | RS-YBC-11 | 70 | -22.58% |
| YBC-12 | 21 | RS-YBC-12 | 18 | -12.38% |
| YBC-13 | 72 | RS-YBC-13 | 72 | -0.14% |
| YBC-14 | 150 | RS-YBC-14 | 150 | -0.13% |
| YBC-15 | 71 | RS-YBC-15 | 71 | 0.00% |
| YBC-16 | 19 | RS-YBC-16 | 5 | -73.96% |
| YBC-17 | 85 | RS-YBC-17 | 85 | -0.94% |
| YBC-18 | 76 | RS-YBC-18 | 72 | -5.12% |
| YBC-19 | 87 | RS-YBC-19 | 79 | -9.98% |
| YBC-20 | 95 | RS-YBC-20 | 79 | -17.25% |
| YBC-21 | 97 | RS-YBC-21 | 97 | -0.51% |
| YBC-22 | 65 | RS-YBC-22 | 65 | -0.92% |
| YBC-23 | 30 | RS-YBC-23 | 30 | 0.00% |
| YBC-24 | 35 | RS-YBC-24 | 35 | -0.29% |
| Moun Sp | 424 | RS-MS | 408 | -3.77% |
| Upper YB | 402 | RS-UYB | 387 | -3.73% |

5-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CR-01 | 71 | RS-CR-01 | 71 | -1.12% |
| CR-02 | 199 | RS-CR-02 | 197 | -0.90% |
| CR-03 | 192 | RS-CR-03 | 192 | -0.16% |
| CR-04 | 105 | RS-CR-04 | 102 | -3.13% |
| CR-05 | 137 | RS-CR-05 | 103 | -25.13% |
| CR-06 | 286 | RS-CR-06 | 216 | -24.70% |
| CR-07 | 141 | RS-CR-07 | 136 | -3.54% |
| DR-01 | 173 | RS-DR-01 | 172 | -0.17% |
| DR-02 | 208 | RS-DR-02 | 155 | -25.58% |
| DR-03 | 82 | RS-DR-03 | 82 | -0.36% |
| OTR-01 | 71 | RS-OTR-01 | 70 | -1.68% |
| OTR-02 | 53 | RS-OTR-02 | 53 | -0.94% |
| OTR-03 | 34 | RS-OTR-03 | 34 | -1.46% |
| OTR-04 | 142 | RS-OTR-04 | 135 | -5.28% |
| SR-01 | 162 | RS-SR-01 | 159 | -1.61% |
| SR-02 | 256 | RS-SR-02 | 194 | -24.10% |
| SR-03 | 195 | RS-SR-03 | 150 | -23.36% |
| YBC-01 | 109 | RS-YBC-01 | 108 | -0.64% |
| YBC-02 | 181 | RS-YBC-02 | 179 | -1.27% |
| YBC-03 | 228 | RS-YBC-03 | 211 | -7.45% |
| YBC-04 | 389 | RS-YBC-04 | 387 | -0.64% |
| YBC-05 | 64 | RS-YBC-05 | 64 | 0.47% |
| YBC-06 | 38 | RS-YBC-06 | 38 | 0.27% |
| YBC-07 | 120 | RS-YBC-07 | 119 | -0.42% |
| YBC-08 | 216 | RS-YBC-08 | 163 | -24.28% |
| YBC-09 | 390 | RS-YBC-09 | 295 | -24.46% |
| YBC-10 | 338 | RS-YBC-10 | 335 | -0.71% |
| YBC-11 | 176 | RS-YBC-11 | 134 | -23.75% |
| YBC-12 | 39 | RS-YBC-12 | 35 | -9.92% |
| YBC-13 | 127 | RS-YBC-13 | 127 | -0.71% |
| YBC-14 | 274 | RS-YBC-14 | 274 | -0.29% |
| YBC-15 | 153 | RS-YBC-15 | 151 | -1.05% |
| YBC-16 | 72 | RS-YBC-16 | 55 | -23.85% |
| YBC-17 | 172 | RS-YBC-17 | 171 | -0.35% |
| YBC-18 | 170 | RS-YBC-18 | 169 | -0.53% |
| YBC-19 | 167 | RS-YBC-19 | 153 | -8.03% |
| YBC-20 | 180 | RS-YBC-20 | 155 | -13.75% |
| YBC-21 | 203 | RS-YBC-21 | 203 | -0.15% |
| YBC-22 | 123 | RS-YBC-22 | 123 | 0.08% |
| YBC-23 | 67 | RS-YBC-23 | 67 | -1.04% |
| YBC-24 | 79 | RS-YBC-24 | 78 | -0.64% |
| Moun Sp | 891 | RS-MS | 851 | -4.52% |
| Upper YB | 869 | RS-UYB | 830 | -4.50% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CR-01 | 77 | J-CR-01 | 73 | -4.30% |
| J-CR-02 | 242 | J-CR-02 | 231 | -4.55% |
| J-CR-03 | 442 | J-CR-03 | 386 | -12.59% |
| J-DR-01 | 118 | J-DR-01 | 97 | -18.43% |
| J-OTR-01 | 48 | J-OTR-01 | 46 | -3.36% |
| J-OTR-02 | 58 | J-OTR-02 | 52 | -10.34% |
| J-OTR-03 | 76 | J-OTR-03 | 70 | -8.40% |
| J-SR-01 | 200 | J-SR-01 | 174 | -12.88% |
| J-SUB-YB | 51 | J-SUB-YB | 51 | -0.97% |
| J-YB-01 | 420 | J-YB-01 | 403 | -3.98% |
| J-YB-02 | 884 | J-YB-02 | 855 | -3.19% |
| J-YB-03 | 1009 | J-YB-03 | 962 | -4.65% |
| J-YB-04 | 1056 | J-YB-04 | 1003 | -5.06% |
| J-YB-05 | 1083 | J-YB-05 | 1030 | -4.85% |
| J-YB-06 | 1115 | J-YB-06 | 1060 | -4.99% |
| J-YB-07 | 1260 | J-YB-07 | 1179 | -6.40% |
| J-YB-08 | 1347 | J-YB-08 | 1278 | -5.11% |
| J-YB-09 | 1543 | J-YB-09 | 1456 | -5.60% |
| J-YB-10 | 1578 | J-YB-10 | 1483 | -5.94% |
| J-YB-11 | 1668 | J-YB-11 | 1607 | -3.68% |
| J-YB-12 | 1692 | J-YB-12 | 1633 | -3.48% |
| J-YB-13 | 1938 | J-YB-13 | 1914 | -1.26% |
| J-YB-14 | 2006 | J-YB-14 | 1986 | -0.96% |
| J-YB-15 | 2029 | J-YB-15 | 2011 | -0.93% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CR-01 | 141 | J-CR-01 | 136 | -3.54% |
| J-CR-02 | 461 | J-CR-02 | 429 | -6.92% |
| J-CR-03 | 808 | J-CR-03 | 718 | -11.12% |
| J-DR-01 | 247 | J-DR-01 | 222 | -9.97% |
| J-OTR-01 | 142 | J-OTR-01 | 135 | -5.28% |
| J-OTR-02 | 173 | J-OTR-02 | 168 | -2.95% |
| J-OTR-03 | 222 | J-OTR-03 | 218 | -1.85% |
| J-SR-01 | 348 | J-SR-01 | 292 | -16.30% |
| J-SUB-YB | 120 | J-SUB-YB | 119 | -0.42% |
| J-YB-01 | 901 | J-YB-01 | 863 | -4.19% |
| J-YB-02 | 1859 | J-YB-02 | 1780 | -4.25% |
| J-YB-03 | 2064 | J-YB-03 | 1965 | -4.79% |
| J-YB-04 | 2145 | J-YB-04 | 2033 | -5.21% |
| J-YB-05 | 2189 | J-YB-05 | 2078 | -5.07% |
| J-YB-06 | 2249 | J-YB-06 | 2125 | -5.51% |
| J-YB-07 | 2500 | J-YB-07 | 2342 | -6.29% |
| J-YB-08 | 2650 | J-YB-08 | 2519 | -4.94% |
| J-YB-09 | 2986 | J-YB-09 | 2820 | -5.57% |
| J-YB-10 | 3045 | J-YB-10 | 2878 | -5.49% |
| J-YB-11 | 3197 | J-YB-11 | 3126 | -2.23% |
| J-YB-12 | 3234 | J-YB-12 | 3173 | -1.87% |
| J-YB-13 | 3601 | J-YB-13 | 3589 | -0.33% |
| J-YB-14 | 3704 | J-YB-14 | 3696 | -0.21% |
| J-YB-15 | 3740 | J-YB-15 | 3732 | -0.21% |

YELLOW BREECHES CREEK EXISTING CALIBRATED MODEL RESULTS VERSUS FUTURE CONTROLLED (ADJUSTED)

CURVE NUMBERS REDUCED BY 10

TIMES OF CONCENTRATION CHANGED BY A FACTOR OF 3.0

10-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CR-01 | 110 | RS-CR-01 | 109 | -1.27% |
| CR-02 | 285 | RS-CR-02 | 282 | -0.95% |
| CR-03 | 264 | RS-CR-03 | 261 | -1.21% |
| CR-04 | 158 | RS-CR-04 | 157 | -0.63% |
| CR-05 | 206 | RS-CR-05 | 153 | -25.84% |
| CR-06 | 432 | RS-CR-06 | 319 | -26.17% |
| CR-07 | 210 | RS-CR-07 | 204 | -3.09% |
| DR-01 | 280 | RS-DR-01 | 279 | -0.21% |
| DR-02 | 317 | RS-DR-02 | 235 | -25.73% |
| DR-03 | 169 | RS-DR-03 | 168 | -0.47% |
| OTR-01 | 127 | RS-OTR-01 | 125 | -1.34% |
| OTR-02 | 106 | RS-OTR-02 | 105 | -1.22% |
| OTR-03 | 78 | RS-OTR-03 | 77 | -0.77% |
| OTR-04 | 277 | RS-OTR-04 | 256 | -7.58% |
| SR-01 | 256 | RS-SR-01 | 248 | -3.36% |
| SR-02 | 374 | RS-SR-02 | 280 | -25.24% |
| SR-03 | 281 | RS-SR-03 | 215 | -23.45% |
| YBC-01 | 170 | RS-YBC-01 | 165 | -3.12% |
| YBC-02 | 227 | RS-YBC-02 | 225 | -0.75% |
| YBC-03 | 388 | RS-YBC-03 | 378 | -2.45% |
| YBC-04 | 594 | RS-YBC-04 | 582 | -2.02% |
| YBC-05 | 97 | RS-YBC-05 | 95 | -1.86% |
| YBC-06 | 71 | RS-YBC-06 | 70 | -0.28% |
| YBC-07 | 201 | RS-YBC-07 | 192 | -4.43% |
| YBC-08 | 383 | RS-YBC-08 | 288 | -24.82% |
| YBC-09 | 607 | RS-YBC-09 | 450 | -25.93% |
| YBC-10 | 530 | RS-YBC-10 | 525 | -0.92% |
| YBC-11 | 270 | RS-YBC-11 | 201 | -25.64% |
| YBC-12 | 59 | RS-YBC-12 | 54 | -8.80% |
| YBC-13 | 185 | RS-YBC-13 | 182 | -1.73% |
| YBC-14 | 407 | RS-YBC-14 | 405 | -0.52% |
| YBC-15 | 247 | RS-YBC-15 | 242 | -1.98% |
| YBC-16 | 158 | RS-YBC-16 | 138 | -12.94% |
| YBC-17 | 267 | RS-YBC-17 | 261 | -2.06% |
| YBC-18 | 279 | RS-YBC-18 | 275 | -1.65% |
| YBC-19 | 253 | RS-YBC-19 | 235 | -6.96% |
| YBC-20 | 270 | RS-YBC-20 | 238 | -11.75% |
| YBC-21 | 322 | RS-YBC-21 | 321 | -0.19% |
| YBC-22 | 184 | RS-YBC-22 | 182 | -0.71% |
| YBC-23 | 112 | RS-YBC-23 | 109 | -2.85% |
| YBC-24 | 131 | RS-YBC-24 | 128 | -2.30% |
| Moun Sp | 1443 | RS-MS | 1373 | -4.90% |
| Upper YB | 1440 | RS-UYB | 1369 | -4.92% |

25-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CR-01 | 180 | RS-CR-01 | 178 | -1.22% |
| CR-02 | 434 | RS-CR-02 | 430 | -0.83% |
| CR-03 | 389 | RS-CR-03 | 378 | -2.88% |
| CR-04 | 253 | RS-CR-04 | 251 | -0.75% |
| CR-05 | 331 | RS-CR-05 | 246 | -25.54% |
| CR-06 | 697 | RS-CR-06 | 520 | -25.48% |
| CR-07 | 335 | RS-CR-07 | 327 | -2.62% |
| DR-01 | 484 | RS-DR-01 | 481 | -0.50% |
| DR-02 | 511 | RS-DR-02 | 379 | -25.90% |
| DR-03 | 367 | RS-DR-03 | 365 | -0.52% |
| OTR-01 | 240 | RS-OTR-01 | 229 | -4.59% |
| OTR-02 | 226 | RS-OTR-02 | 220 | -2.83% |
| OTR-03 | 183 | RS-OTR-03 | 178 | -2.84% |
| OTR-04 | 573 | RS-OTR-04 | 539 | -5.78% |
| SR-01 | 431 | RS-SR-01 | 423 | -1.74% |
| SR-02 | 587 | RS-SR-02 | 437 | -25.55% |
| SR-03 | 433 | RS-SR-03 | 327 | -24.58% |
| YBC-01 | 283 | RS-YBC-01 | 269 | -5.05% |
| YBC-02 | 299 | RS-YBC-02 | 297 | -0.60% |
| YBC-03 | 699 | RS-YBC-03 | 675 | -3.39% |
| YBC-04 | 970 | RS-YBC-04 | 931 | -4.02% |
| YBC-05 | 159 | RS-YBC-05 | 151 | -4.84% |
| YBC-06 | 140 | RS-YBC-06 | 136 | -2.50% |
| YBC-07 | 360 | RS-YBC-07 | 326 | -9.53% |
| YBC-08 | 722 | RS-YBC-08 | 524 | -27.38% |
| YBC-09 | 1013 | RS-YBC-09 | 759 | -25.05% |
| YBC-10 | 890 | RS-YBC-10 | 871 | -2.18% |
| YBC-11 | 446 | RS-YBC-11 | 322 | -27.89% |
| YBC-12 | 95 | RS-YBC-12 | 88 | -7.34% |
| YBC-13 | 289 | RS-YBC-13 | 284 | -1.59% |
| YBC-14 | 646 | RS-YBC-14 | 645 | -0.20% |
| YBC-15 | 427 | RS-YBC-15 | 408 | -4.38% |
| YBC-16 | 360 | RS-YBC-16 | 344 | -4.42% |
| YBC-17 | 444 | RS-YBC-17 | 426 | -4.10% |
| YBC-18 | 491 | RS-YBC-18 | 477 | -2.87% |
| YBC-19 | 412 | RS-YBC-19 | 388 | -5.78% |
| YBC-20 | 434 | RS-YBC-20 | 392 | -9.61% |
| YBC-21 | 547 | RS-YBC-21 | 546 | -0.11% |
| YBC-22 | 295 | RS-YBC-22 | 291 | -1.42% |
| YBC-23 | 202 | RS-YBC-23 | 198 | -1.93% |
| YBC-24 | 234 | RS-YBC-24 | 231 | -1.07% |
| Moun Sp | 2529 | RS-MS | 2405 | -4.92% |
| Upper YB | 2590 | RS-UYB | 2446 | -5.58% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CR-01 | 210 | J-CR-01 | 204 | -3.09% |
| J-CR-02 | 698 | J-CR-02 | 637 | -8.81% |
| J-CR-03 | 1197 | J-CR-03 | 1063 | -11.24% |
| J-DR-01 | 410 | J-DR-01 | 384 | -6.30% |
| J-OTR-01 | 277 | J-OTR-01 | 256 | -7.58% |
| J-OTR-02 | 340 | J-OTR-02 | 330 | -3.00% |
| J-OTR-03 | 434 | J-OTR-03 | 426 | -1.96% |
| J-SR-01 | 503 | J-SR-01 | 411 | -18.32% |
| J-SUB-YB | 201 | J-SUB-YB | 192 | -4.43% |
| J-YB-01 | 1487 | J-YB-01 | 1432 | -3.67% |
| J-YB-02 | 3031 | J-YB-02 | 2893 | -4.56% |
| J-YB-03 | 3307 | J-YB-03 | 3147 | -4.85% |
| J-YB-04 | 3423 | J-YB-04 | 3241 | -5.32% |
| J-YB-05 | 3483 | J-YB-05 | 3301 | -5.23% |
| J-YB-06 | 3569 | J-YB-06 | 3365 | -5.74% |
| J-YB-07 | 3927 | J-YB-07 | 3673 | -6.48% |
| J-YB-08 | 4141 | J-YB-08 | 3916 | -5.45% |
| J-YB-09 | 4621 | J-YB-09 | 4339 | -6.09% |
| J-YB-10 | 4698 | J-YB-10 | 4407 | -6.19% |
| J-YB-11 | 4895 | J-YB-11 | 4723 | -3.51% |
| J-YB-12 | 4939 | J-YB-12 | 4775 | -3.33% |
| J-YB-13 | 5429 | J-YB-13 | 5373 | -1.04% |
| J-YB-14 | 5588 | J-YB-14 | 5551 | -0.66% |
| J-YB-15 | 5640 | J-YB-15 | 5609 | -0.54% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CR-01 | 335 | J-CR-01 | 327 | -2.62% |
| J-CR-02 | 1132 | J-CR-02 | 1029 | -9.08% |
| J-CR-03 | 1900 | J-CR-03 | 1692 | -10.96% |
| J-DR-01 | 743 | J-DR-01 | 716 | -3.58% |
| J-OTR-01 | 573 | J-OTR-01 | 539 | -5.78% |
| J-OTR-02 | 712 | J-OTR-02 | 699 | -1.80% |
| J-OTR-03 | 902 | J-OTR-03 | 887 | -1.76% |
| J-SR-01 | 781 | J-SR-01 | 618 | -20.85% |
| J-SUB-YB | 360 | J-SUB-YB | 326 | -9.53% |
| J-YB-01 | 2666 | J-YB-01 | 2535 | -4.90% |
| J-YB-02 | 5370 | J-YB-02 | 5077 | -5.44% |
| J-YB-03 | 5801 | J-YB-03 | 5474 | -5.64% |
| J-YB-04 | 5994 | J-YB-04 | 5623 | -6.19% |
| J-YB-05 | 6085 | J-YB-05 | 5709 | -6.19% |
| J-YB-06 | 6216 | J-YB-06 | 5817 | -6.42% |
| J-YB-07 | 6786 | J-YB-07 | 6313 | -6.97% |
| J-YB-08 | 7144 | J-YB-08 | 6702 | -6.20% |
| J-YB-09 | 7887 | J-YB-09 | 7345 | -6.88% |
| J-YB-10 | 8002 | J-YB-10 | 7454 | -6.85% |
| J-YB-11 | 8313 | J-YB-11 | 7927 | -4.64% |
| J-YB-12 | 8381 | J-YB-12 | 7995 | -4.60% |
| J-YB-13 | 9010 | J-YB-13 | 8711 | -3.32% |
| J-YB-14 | 9226 | J-YB-14 | 8991 | -2.55% |
| J-YB-15 | 9296 | J-YB-15 | 9077 | -2.35% |

YELLOW BREECHES CREEK EXISTING CALIBRATED MODEL RESULTS VERSUS FUTURE CONTROLLED (ADJUSTED)

CURVE NUMBERS REDUCED BY 10

TIMES OF CONCENTRATION CHANGED BY A FACTOR OF 3.0

50-Year

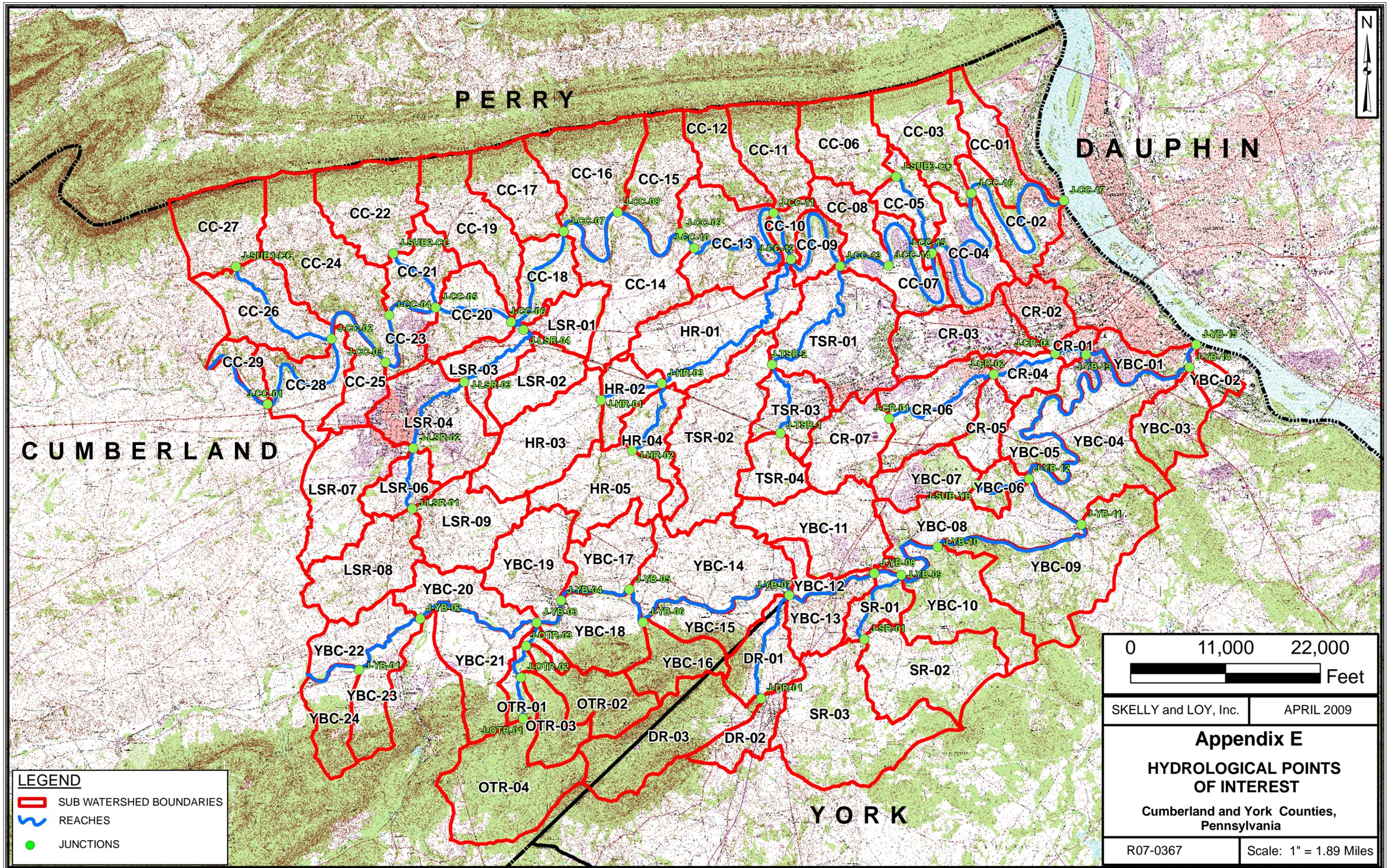
| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CR-01 | 251 | RS-CR-01 | 248 | -1.28% |
| CR-02 | 580 | RS-CR-02 | 569 | -1.90% |
| CR-03 | 511 | RS-CR-03 | 505 | -1.16% |
| CR-04 | 350 | RS-CR-04 | 342 | -2.23% |
| CR-05 | 457 | RS-CR-05 | 340 | -25.56% |
| CR-06 | 968 | RS-CR-06 | 724 | -25.17% |
| CR-07 | 463 | RS-CR-07 | 453 | -2.33% |
| DR-01 | 699 | RS-DR-01 | 694 | -0.64% |
| DR-02 | 707 | RS-DR-02 | 523 | -26.06% |
| DR-03 | 606 | RS-DR-03 | 602 | -0.58% |
| OTR-01 | 364 | RS-OTR-01 | 349 | -4.12% |
| OTR-02 | 369 | RS-OTR-02 | 364 | -1.19% |
| OTR-03 | 313 | RS-OTR-03 | 300 | -4.18% |
| OTR-04 | 916 | RS-OTR-04 | 859 | -6.20% |
| SR-01 | 610 | RS-SR-01 | 598 | -2.02% |
| SR-02 | 802 | RS-SR-02 | 598 | -25.41% |
| SR-03 | 588 | RS-SR-03 | 439 | -25.28% |
| YBC-01 | 401 | RS-YBC-01 | 395 | -1.40% |
| YBC-02 | 365 | RS-YBC-02 | 363 | -0.63% |
| YBC-03 | 1028 | RS-YBC-03 | 1004 | -2.29% |
| YBC-04 | 1359 | RS-YBC-04 | 1345 | -0.98% |
| YBC-05 | 224 | RS-YBC-05 | 223 | -0.49% |
| YBC-06 | 218 | RS-YBC-06 | 215 | -1.42% |
| YBC-07 | 532 | RS-YBC-07 | 516 | -2.97% |
| YBC-08 | 1098 | RS-YBC-08 | 768 | -30.01% |
| YBC-09 | 1438 | RS-YBC-09 | 1071 | -25.38% |
| YBC-10 | 1263 | RS-YBC-10 | 1210 | -4.22% |
| YBC-11 | 630 | RS-YBC-11 | 466 | -26.01% |
| YBC-12 | 133 | RS-YBC-12 | 124 | -6.55% |
| YBC-13 | 393 | RS-YBC-13 | 391 | -0.31% |
| YBC-14 | 891 | RS-YBC-14 | 888 | -0.33% |
| YBC-15 | 616 | RS-YBC-15 | 604 | -1.88% |
| YBC-16 | 600 | RS-YBC-16 | 585 | -2.42% |
| YBC-17 | 628 | RS-YBC-17 | 624 | -0.73% |
| YBC-18 | 718 | RS-YBC-18 | 709 | -1.28% |
| YBC-19 | 576 | RS-YBC-19 | 547 | -5.08% |
| YBC-20 | 600 | RS-YBC-20 | 551 | -8.23% |
| YBC-21 | 783 | RS-YBC-21 | 782 | -0.15% |
| YBC-22 | 410 | RS-YBC-22 | 407 | -0.63% |
| YBC-23 | 299 | RS-YBC-23 | 298 | -0.53% |
| YBC-24 | 346 | RS-YBC-24 | 337 | -2.43% |
| Moun Sp | 3711 | RS-MS | 3517 | -5.22% |
| Upper YB | 3862 | RS-UYB | 3648 | -5.55% |

100-Year

| Subbasin Existing Calibrated | Existing Calibrated Discharge Peak (cfs) | Reservoir Future Controlled | Future Controlled Discharge Peak (cfs) | Percent Change |
|------------------------------|--|-----------------------------|--|----------------|
| CR-01 | 339 | RS-CR-01 | 335 | -1.24% |
| CR-02 | 761 | RS-CR-02 | 736 | -3.21% |
| CR-03 | 661 | RS-CR-03 | 656 | -0.67% |
| CR-04 | 471 | RS-CR-04 | 451 | -4.31% |
| CR-05 | 815 | RS-CR-05 | 457 | -25.57% |
| CR-06 | 1308 | RS-CR-06 | 976 | -25.44% |
| CR-07 | 626 | RS-CR-07 | 613 | -2.14% |
| DR-01 | 974 | RS-DR-01 | 970 | -0.47% |
| DR-02 | 951 | RS-DR-02 | 702 | -26.16% |
| DR-03 | 942 | RS-DR-03 | 936 | -0.66% |
| OTR-01 | 528 | RS-OTR-01 | 519 | -1.69% |
| OTR-02 | 568 | RS-OTR-02 | 560 | -1.50% |
| OTR-03 | 499 | RS-OTR-03 | 489 | -2.08% |
| OTR-04 | 1391 | RS-OTR-04 | 1294 | -7.00% |
| SR-01 | 836 | RS-SR-01 | 811 | -2.90% |
| SR-02 | 1073 | RS-SR-02 | 797 | -25.73% |
| SR-03 | 783 | RS-SR-03 | 583 | -25.55% |
| YBC-01 | 549 | RS-YBC-01 | 542 | -1.37% |
| YBC-02 | 443 | RS-YBC-02 | 440 | -0.66% |
| YBC-03 | 1455 | RS-YBC-03 | 1411 | -3.00% |
| YBC-04 | 1852 | RS-YBC-04 | 1841 | -0.59% |
| YBC-05 | 308 | RS-YBC-05 | 307 | -0.26% |
| YBC-06 | 325 | RS-YBC-06 | 315 | -3.14% |
| YBC-07 | 757 | RS-YBC-07 | 747 | -1.24% |
| YBC-08 | 1597 | RS-YBC-08 | 1164 | -27.10% |
| YBC-09 | 1978 | RS-YBC-09 | 1460 | -26.17% |
| YBC-10 | 1739 | RS-YBC-10 | 1716 | -1.34% |
| YBC-11 | 867 | RS-YBC-11 | 649 | -25.20% |
| YBC-12 | 181 | RS-YBC-12 | 170 | -5.86% |
| YBC-13 | 522 | RS-YBC-13 | 520 | -0.46% |
| YBC-14 | 1200 | RS-YBC-14 | 1194 | -0.45% |
| YBC-15 | 859 | RS-YBC-15 | 850 | -0.99% |
| YBC-16 | 937 | RS-YBC-16 | 906 | -3.28% |
| YBC-17 | 863 | RS-YBC-17 | 858 | -0.63% |
| YBC-18 | 1014 | RS-YBC-18 | 1009 | -0.56% |
| YBC-19 | 786 | RS-YBC-19 | 751 | -4.51% |
| YBC-20 | 810 | RS-YBC-20 | 753 | -7.01% |
| YBC-21 | 1087 | RS-YBC-21 | 1085 | -0.16% |
| YBC-22 | 555 | RS-YBC-22 | 550 | -0.92% |
| YBC-23 | 429 | RS-YBC-23 | 425 | -0.91% |
| YBC-24 | 494 | RS-YBC-24 | 473 | -4.29% |
| Moun Sp | 5277 | RS-MS | 4988 | -5.47% |
| Upper YB | 5570 | RS-UYB | 5261 | -5.55% |

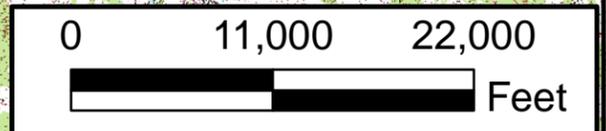
| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CR-01 | 463 | J-CR-01 | 453 | -2.33% |
| J-CR-02 | 1578 | J-CR-02 | 1428 | -9.47% |
| J-CR-03 | 2613 | J-CR-03 | 2329 | -10.88% |
| J-DR-01 | 1113 | J-DR-01 | 1088 | -2.32% |
| J-OTR-01 | 916 | J-OTR-01 | 859 | -6.20% |
| J-OTR-02 | 1145 | J-OTR-02 | 1113 | -2.73% |
| J-OTR-03 | 1467 | J-OTR-03 | 1439 | -1.90% |
| J-SR-01 | 1062 | J-SR-01 | 828 | -22.05% |
| J-SUB-YB | 532 | J-SUB-YB | 516 | -2.97% |
| J-YB-01 | 3969 | J-YB-01 | 3764 | -5.16% |
| J-YB-02 | 7930 | J-YB-02 | 7487 | -5.58% |
| J-YB-03 | 8530 | J-YB-03 | 8023 | -5.94% |
| J-YB-04 | 8809 | J-YB-04 | 8231 | -6.56% |
| J-YB-05 | 8934 | J-YB-05 | 8346 | -6.59% |
| J-YB-06 | 9113 | J-YB-06 | 8512 | -6.60% |
| J-YB-07 | 9918 | J-YB-07 | 9195 | -7.29% |
| J-YB-08 | 10454 | J-YB-08 | 9745 | -6.78% |
| J-YB-09 | 11489 | J-YB-09 | 10615 | -7.45% |
| J-YB-10 | 11624 | J-YB-10 | 10784 | -7.23% |
| J-YB-11 | 12070 | J-YB-11 | 11433 | -5.28% |
| J-YB-12 | 12168 | J-YB-12 | 11534 | -5.21% |
| J-YB-13 | 13084 | J-YB-13 | 12484 | -4.59% |
| J-YB-14 | 13383 | J-YB-14 | 12737 | -4.83% |
| J-YB-15 | 13468 | J-YB-15 | 12816 | -4.84% |

| Junction Existing Calibrated | Discharge Peak (cfs) | Junction Future Controlled | Discharge Peak (cfs) | Percent Change |
|------------------------------|----------------------|----------------------------|----------------------|----------------|
| J-CR-01 | 626 | J-CR-01 | 613 | -2.14% |
| J-CR-02 | 2157 | J-CR-02 | 1927 | -10.69% |
| J-CR-03 | 3528 | J-CR-03 | 3119 | -11.61% |
| J-DR-01 | 1614 | J-DR-01 | 1590 | -1.51% |
| J-OTR-01 | 1391 | J-OTR-01 | 1294 | -7.00% |
| J-OTR-02 | 1747 | J-OTR-02 | 1676 | -4.06% |
| J-OTR-03 | 2245 | J-OTR-03 | 2181 | -2.86% |
| J-SR-01 | 1415 | J-SR-01 | 1084 | -23.41% |
| J-SUB-YB | 757 | J-SUB-YB | 747 | -1.24% |
| J-YB-01 | 5714 | J-YB-01 | 5417 | -5.20% |
| J-YB-02 | 11337 | J-YB-02 | 10692 | -5.69% |
| J-YB-03 | 12155 | J-YB-03 | 11407 | -6.15% |
| J-YB-04 | 12543 | J-YB-04 | 11693 | -6.77% |
| J-YB-05 | 12712 | J-YB-05 | 11846 | -6.81% |
| J-YB-06 | 12953 | J-YB-06 | 12074 | -6.78% |
| J-YB-07 | 14067 | J-YB-07 | 12996 | -7.61% |
| J-YB-08 | 14846 | J-YB-08 | 13772 | -7.23% |
| J-YB-09 | 16213 | J-YB-09 | 14916 | -7.99% |
| J-YB-10 | 16422 | J-YB-10 | 15142 | -7.79% |
| J-YB-11 | 17046 | J-YB-11 | 16032 | -5.95% |
| J-YB-12 | 17178 | J-YB-12 | 16175 | -5.84% |
| J-YB-13 | 18492 | J-YB-13 | 17512 | -5.30% |
| J-YB-14 | 18937 | J-YB-14 | 17873 | -5.62% |
| J-YB-15 | 19048 | J-YB-15 | 17976 | -5.63% |



LEGEND

- ▬ SUB WATERSHED BOUNDARIES
- ~ REACHES
- JUNCTIONS



SKELLY and LOY, Inc. | APRIL 2009

Appendix E
HYDROLOGICAL POINTS OF INTEREST
 Cumberland and York Counties, Pennsylvania

R07-0367 | Scale: 1" = 1.89 Miles