

### MetroConnects Plan Review Checklist

|                        |  |
|------------------------|--|
| Project Name:          |  |
| Professional Engineer: |  |
| Engineering Firm:      |  |

| Metro Review | Engineer Review | GENERAL   |
|--------------|-----------------|---|
|              |                 | Sewer System Design Calculations for each phase   |
|              |                 | One (1) bound, complete set   |
|              |                 | Cover sheet (to include the correct project title, site map, revision block, and Metro contact information) |
|              |                 | Site map (legible site map with hatched/highlighted phase)  |
|              |                 | Engineer's seal, signed and dated on each sheet with Certificate of Authorization (COA)                     |
|              |                 | Overall project utility plan sheet with current phase accentuated   |
|              |                 | Grading plans shown with proposed sewer design  |
|              |                 | Road names labeled (generic road names are acceptable). Identify roads as public or private.                |
|              |                 | Width and center line of each Road R/W and EOP indicated  |
|              |                 | All lots, adjacent TMS numbers, and/or buildings labeled  |
|              |                 | Scale (not to exceed 1" = 50') and north arrow shown on each plan and profile sheet.                        |
|              |                 | All easements (proposed, existing, onsite, and offsite) and ROWs properly shown, delineated, and labeled.   |
|              |                 | Ingress/egress easements required/shown   |
|              |                 | Sewer Easements extended to include the end of the sewer mains/MHs outside the phase line                   |
|              |                 | Commercial/Multi-Family: Cleanouts included on drawings. Cleanouts to be installed as part of construction. |

| SEWER PLAN SET |  |   |
|----------------|--|---|
|                |  | Plan view includes manholes, manhole numbers, and other buried pipelines  |
|                |  | Plans and profiles on same sheet  |
|                |  | Sewer stationing labeled on both plan and profile views (center of MH to center of MH)  |
|                |  | Profile includes all crossings (water, storm drainage, road center line, etc.), label vertical clearances, MH diameters, and existing and final grades                                      |
|                |  | Profile view includes pipe labels - LF, size, material, pipe class, and slope (i.e. 200LF of 8" PVC SDR26 @ 0.50%)  |
|                |  | Method of road crossing indicated (jack and bore, open cut, etc.)   |
|                |  | 4 ft min cover sewer mains (or DIP TNEMEC 431/C900).  |
|                |  | 10 ft minimum horizontal separation between sewer and storm/water mains.  |
|                |  | Slopes checked (use Metro's SSS&P for design criteria). Starter MHs and dead-end MHs at min. 1% slope.  |
|                |  | DIP TNEMEC 431 or C900 labeled (length, diameter, and thickness) when drainage crossing is <2' of clearance   |
|                |  | MH depth/size: 4' diameter:<12' deep. 5' diameter: 12'-<18'. 6' diameter: 18' – 23'   |
|                |  | MHs installed in a fill area: 1' lifts and required compaction under 10' x 10' area under manhole to grade.   |
|                |  | Maximum distance between MHs is 350 LF  |
|                |  | Inside drop manholes labeled and proper diameter indicated.   |
|                |  | Matching crowns for differing pipe diameters  |
|                |  | 2/10th drop at each MH and or crown to crown connection   |
|                |  | IE Out for existing manholes at tie-in points labeled   |
|                |  | Current sewer details (Find the most current details at <a href="http://www.metroconnects.org">www.metroconnects.org</a> )  |
|                |  | All manholes accessible   |
|                |  | Sewer tie-in note: Contractor to verify existing MH elevations and notify engineer and MetroConnects of any discrepancies. Contact MetroConnects a minimum of 48 hours prior to connection. |
|                |  | Laterals: 5' minimum horizontal separation b/t laterals, 2' min vertical separation b/t storm   |
|                |  | Laterals: within the lower 1/3 of the property frontage, not within the frontage of the building footprint and not in driveway  |
|                |  | All lots served with a gravity sewer service of adequate depth (min. 3' cover for services or provide DIP)  |
|                |  | Easements to be labeled on plan view, max 1:10 slope (longitudinal and cross-slopes)  |
|                |  | Sewer easements/stub outs (if under pavement) for future developable properties without existing sewer  |
|                |  | Private Roads: Enlarged easement to include typical 44' ROW   |
|                |  | Bypass plans required when bypassing as part of construction  |

I certify the submitted construction plans and calculations meet the above criteria. If any of the above criteria is missing or not provided, I understand that MetroConnects has the right to reject my submittal. I understand that MetroConnects reviews items that are not included on this checklist and that comments may be issued on checklist items and other items MetroConnects reviews. All plans are subject to the criteria outlined in the Sanitary Sewer Standards and Procedures manual (SSS&P). Plan approvals do not supersede the SSS&P criteria.

PE Signature: \_\_\_\_\_

Date: \_\_\_\_\_

|                        |  |
|------------------------|--|
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| Metro Review | Engineer Review |  |
|--------------|-----------------|--|
|              |                 | <b>PUMP STATION PLAN SET</b>   |
|              |                 | Site plan with maximum scale of 1" = 20'                                     |
|              |                 | Site drainage (design grades including existing and finish grades)           |
|              |                 | Property lines and dimensions  |
|              |                 | Location and Dimensions of major components (control panel, generator, etc.) |
|              |                 | Pump Station Notes   |

| <b>PLAN VIEW OF STATION</b> |  |  |
|-----------------------------|--|--|
|                             |  | Wet well diameter  |
|                             |  | Hatch dimensions   |
|                             |  | Discharge main components and size   |
|                             |  | Specify type of valves on force main discharge piping                                |
|                             |  | Control panel location   |
|                             |  | Generator location   |
|                             |  | Slab dimensions & elevations (Site to be a minimum 1' above existing/new FEMA flood) |
|                             |  | Access road labeled as Access Easement/Sewer Easement                                |
|                             |  | Security Camera indicated with proper location and specification                     |

| <b>PROFILE VIEW OF STATION</b> |  |   |
|--------------------------------|--|---|
|                                |  | Wet well diameter                                     |
|                                |  | Base slab dimensions                                  |
|                                |  | Discharge main components and size                    |
|                                |  | Specify type of valves on force main discharge piping |
|                                |  | Pipe supports   |
|                                |  | Pump size, TDH, calculated pump rate, volage          |
|                                |  | Hightide alarm levels labeled                         |
|                                |  | Influent line invert elevation                        |
|                                |  | Minimum water level                                   |
|                                |  | Slab top and corner elevations                        |

| <b>PUMP STATION ELECTRICAL PLANS</b> |  |                                  |
|--------------------------------------|--|----------------------------------|
|                                      |  | Entrance power sizing            |
|                                      |  | Entrance power disconnect sizing |
|                                      |  | Generator sizing                 |
|                                      |  | Pump riser diagram               |
|                                      |  | Grounding design                 |
|                                      |  | One line diagram                 |

| <b>FORCE MAIN PLAN &amp; PROVILE VIEWS</b> |  |  |
|--|--|--|
|  |  | Force main profile views (same requirements as sewer profiles)                 |
|  |  | Label air release valve and tracer wire dummy boxes                            |
|  |  | Coating specified; Label all manholes to be coated from the FM discharge point |
|  |  | Current details  |

I certify the submitted construction plans and calculations or record drawings meet the above criteria. If any of the above criteria is missing or not provided, I understand that MetroConnects has the right to reject my submittal. I understand that MetroConnects reviews items that are not included on this checklist and that comments may be issued on checklist items and other items MetroConnects reviews.

PE Signature: \_\_\_\_\_

Date: \_\_\_\_\_