NOTES: 200 - CONTOURS

- REFER TO ARCHITECT'S PLANS AND RETAINING WALL PLANS AND LONG SECTIONS FOR LOT LEVELS: ROADING LONG SECTIONS FOR JOAL SURFACE LEVELS. ALL LEVELS ARE IN TERMS OF AUCKLAND VERTICAL DATUM NZVD 2016
- ALL EARTHWORKS SHALL COMPLY WITH THE **EROSION AND SEDIMENT CONTROL GUIDELINES FOR LAND DISTURBING** ACTIVITIES, AC GD2016/005.
- NO EARTHWORKS CAN COMMENCE UNTIL AN AS-BUILT SURVEY OF ALL SEDIMENT AND FROSION CONTROL DEVICES HAS BEEN COMPLETED, AND APPROVAL TO COMMENCE HAS BEEN ISSUED BY AUCKLAND COUNCIL
- UNDER-FILL DRAINAGE IS TO BE INSTALLED AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER SHOULD THE CONTRACTOR ENCOUNTER SPRINGS OR OTHER SOURCES OF WATER, THEY ARE TO NOTIFY THE GEOTECHNICAL ENGINEER IMMEDIATELY
- ALL UNSUITABLE MATERIALS AS DEFINED IN THE CONTRACT SPECIFICATION IS TO BE REMOVED AND STRIPPED AREAS INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO ANY FILLING TAKING PLACE.
- EARTHWORKS SHALL NOT EXTEND PAST THE AREA SHOWN ON THE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER
- EARTHWORKS ARE NOT TO BE EXTENDED INTO ADJOINING LOTS UNLESS THE ENGINEER HAS ISSUED SPECIFIC INSTRUCTIONS TO DO
- THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND PROTECTING EXISTING SERVICES AND DRAINAGE ON SITE.
- THE CONTRACTOR SHALL CONFIRM THE LOCATION LEVELS AND DETAILING OF ALL PROPOSED GEOTECHNICAL WORKS WITH THE GEOTECHNICAL ENGINEERS ON SITE PRIOR TO PROCEEDING WITH THOSE WORKS

NOTES: 210 - CUT AND FILL

- ALL LEVELS ARE IN TERMS OF ALICKLAND VERTICAL DATUM NZVD 2016. THE CONTOUR
- CUT / FILL BETWEEN EXISTING SURFACE AND FINISHED DESIGN SURFACE.

220 - SITE CLEARING

- ALL TREES AND ASSOCIATED FENCING NOT IDENTIFIED FOR CLEARING WITHIN THE WORKS AREA ARE TO BE RETAINED UNLESS DIRECTED BY THE ENGINEER
- ANY TREES THAT ARE NOTED TO BE RETAINED. SHALL BE IDENTIFIED ON SITE AND FENCED AROUND THE DRIPLINE FOR PROTECTION.
- ANY ASBESTOS OR CONTAMINATED MATERIAL IS TO BE REMOVED FROM SITE IN ACCORDANCE WITH A COUNCIL APPROVED REMEDIATION ACTION PLAN.
- NO FIRES ARE PERMITTED UNLESS CONSENT S OBTAINED FROM THE FIRE SERVICE.

NOTES: 230 - ESC

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE **EROSION AND SEDIMENT CONTROL GUIDELINES FOR LAND DISTURBING** ACTIVITIES, AUCKLAND COUNCIL GD005
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE OPERATIONAL PRIOR TO ANY OTHER WORKS COMMENCING ON SITE. THE CONTRACTOR SHALL ARRANGE FOR AND ATTEND A PRELIMINARY SEDIMENT CONTROL MEETING ONSITE WITH THE ENGINEER AND COUNCIL REPRESENTATIVE.
- A COPY OF THE SEDIMENT CONTROL PLAN SHALL BE AVAILABLE ON SITE DURING WORK HOURS. ALL PERSONNEL INVOLVED IN **EARTHWORK ACTIVITIES ON THE SITE** (INCLUSIVE OF SUB-CONTRACTORS) SHALL BE . FAMILIAR WITH THE PLANS REQUIRÉMENTS.
- ALL "CLEAN WATER" RUNOFF FROM STABILIZED SURFACES INCLUDING CATCHMENT AREAS ABOVE THE SITE SHALL BE DIVERTED AWAY FROM THE EARTHWORK AREAS VIA A STABILIZED SYSTEM TO PREVENT
- THE MAIN SILT CONTROL MEASURES FOR THIS SITE ARE:
- REMOVAL OF SEDIMENT FROM SILT LADEN WATERS USING SUPER SILT FENCES AS
- STABILISATION OF THE SITE AGAINST EROSION AS SOON AS PRACTICABLE AND IN A PROGRESSIVE MANNER AS EARTHWORKS ARE FINISHED OVER VARIOUS AREAS OF THE SITE;
- NEW CESSPITS MUST BE PROTECTED TO PREVENT SILT LADEN RUNOFF ENTERING THE NEW STORMWATER LINES; AND
- MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES AS REQUIRED.
- FURTHER SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER AS THE PROJECT ADVANCES. THESE WILL BE INSTALLED AS AND WHERE DIRECTED BY THE ENGINEER. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT THE SITE HAS EFFECTIVE MEASURES OPERATING AT ALL TIMES.

NOTES: 250 - RET WALL PLAN

- LEVELS ARE IN TERMS OF AUCKLAND VERTICAL DATUM NZVD 2016.
- REFER TO STRUCTURAL ENGINEER'S PLANS AND SECTIONS FOR RETAINING WALL DESIGN
- ALL RETAINING WALLS FACING THE ROAD FRONTAGE WILL BE KEYSTONE
- EARTHWORKS SHALL NOT EXTEND PAST THE AREA SHOWN ON THE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- EARTHWORKS ARE NOT TO BE EXTENDED INTO ADJOINING LOTS UNLESS THE ENGINEER HAS ISSUED SPECIFIC INSTRUCTIONS TO DO
- THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND PROTECTING EXISTING SERVICES AND DRAINAGE ON SITE STRUCTURAL ENGINEER TO DETAIL ANY REQUIRED PIPE BRIDGING
- THE CONTRACTOR SHALL CONFIRM THE LOCATION, LEVELS AND DETAILING OF ALL PROPOSED GEOTECHNICAL WORKS WITH THE GEOTECHNICAL ENGINEERS ON SITE PRIOR TO PROCEEDING WITH THOSE WORKS

NOTES: 300 - ROADING

- 1. ALL WORK AND MATERIALS TO COMPLY WITH AT TRANSPORT DESIGN MANUAL STANDARDS. ANY AMBIGUITY BETWEEN ISSUED DRAWINGS AND CONCIL STANDARDS IS TO BE REPORTED TO THE ENGINEER FOR CLARIFICATION.
- 2. THE CONTRACTOR SHALL EXTEND ROAD CONSTRUCTION 2m PAST THE STAGE BOUNDARY FOR FUTURE INTERNAL SUBDIVISION CONNECTIONS.
- ROAD SETOUT DATA SHOWN ON 3000 SERIES DRAWINGS IS TO BE PROVIDED
- 4. ALL ROAD MARKING AND ROAD SIGNAGE IS TO BE CONSTRUCTED AS PER TRANSIT NEW ZEALAND'S MANUAL OF SIGNS AND MARKINGS, AND AT TDM
- VEHICLE ACCESSWAYS FOR JOAL SHALL BE AS PER AT COMMERCIAL VEHICLE STANDARD DRAWINGS VX0201-VX0205. ALL OTHER VEHCILE CROSSINGS SHALL BE AS PER AT DRAWINGS VX0101-VX0105
- REFER TO LANDSCAPE ARCHITECTS PLANS FOR STREET TREE DETAILS. TREES SHOWN ON PLAN ARE INDICATIVE ONLY
- 7. STREET LIGHTS SHOWN ON PLAN ARE INDICATIVE ONLY.

NOTES: 360 - ROAD TYP XS

- SUBGRADE CBR ASSUMED AS 4%. SUBGRADE TO BE TESTED BY SCALA PENETROMETER BY CONTRACTOR FOLLOWING BULK EARTHWORKS PRIOR TO FINAL ROAD TRIMMING. RESULTS TO BE PROVIDED TO THE ENGINEER TO CONFIRM PAVEMENT DEPTH.
- GRADE 4 MEMBRANE CHIPSEAL TO BE PLACED (AT 1L/m2 OF RESIDUAL BITUMEN) ON BASECOURSE PRIOR TO ASPHALT SURFACING
- 3. SUBSOIL DRAINAGE TO BE IN ACCORDANCE WITH ATCOP DRAWING RD025 HOWEVER THE TRENCH BACKFILL IS TO BE IN ACCORDANCE WITH NZTA F2 SPECIFICATION
- REFER TO STREETLIGHTING PLANS FOR LIGHTING DETAILS. COLUMNS TO BE MINIMUM 1.0m OFFSET FROM FACE OF KERB TO FACE OF POLE UNLESS SPECIFIED.
- REFER TO 390 SERIES DRAWINGS FOR KERB DETAILS.
- REFER TO LANDSCAPING PLANS FOR STREET TREE AND PLANTING DETAILS
- 7. FOR ROAD LAYOUT, REFER TO DRAWING 300
- FINAL DEFLECTION ON ROAD PAVEMENT TO BE ON LOCAL ROADS, CONTRACTOR TO UNDEDRTAKE BENKELMAN BEAM AND FWD TESTING PRIOR TO SURFACING FOR APPROVAL BY THE ENGINEER

NOTES: 380 - RD MARKING

- ALL ROAD MARKING AND ROAD SIGNAGE IS TO BE CONSTRUCTED AS PER NZTA MANUAL OF SIGNS AND MARKINGS AND ATCOP
- PRIOR TO ROAD MARKING BEING UNDERTAKEN, THE CONTRACTOR IS TO CONFIRM WITH THE ENGINEER THAT ALL APPROVALS FOR ROAD MARKING HAVE BEEN OBTAINED.
- PRIOR TO ROAD MARKING BEING UNDERTAKEN, THE CONTRACTOR IS TO CONFIRM WITH THE ENGINEER THAT ALL APPROVALS FOR ROAD MARKING HAVE BEEN ORTAINED
- ALL WHITE ROAD MARKINGS SHOULD BE REFLECTORIZED IN CONFORMANCE WITH MOTSAM AND ATCOP REQUIREMENTS.

NOTES: 400 - STORMWATER

- ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL CODE OF PRACTICE FOR LAND FOR LAND DEVELOPMENT AND SUBDIVISION CHAPTER 4-STORMWATER
- ALL PIPES CROSSING UNDER CARRIAGEWAY/TRAFFIC AREAS TO BE HARDFILL BACKFILLED 1.0m BEYOND THE EXTENT OF CARRIAGEWAY. ALL PIPE CROSS OVERS ARE TO BE HARDFILL BACKFILLED 1.0m EITHER SIDE OF CROSS OVER.
- THESE DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING SERVICES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY LOCATE AND PROJECT ALL EXISTING SERVICES DURING THE CONSTRUCTION PROCESS.

NOTES: 410 - SW LONGS

- ALL STORMWATER LINES ARE TO BE CLASS 2 REINFORCED CONCRETE RUBBER RING JOINTS (RCRRJ) UNLESS SPECIFIED OTHERWISE
- ALL MANHOLES ARE TO BE 1050 DIA, WITH HEAVY DUTY LIDS UNLESS SPECIFIED
- BEDDING FOR STORMWATER TO COMPLY WITH AUCKLAND COUNCIL CODE OF PRACTICE FOR LAND DEVELOPMENT AND SUBDIVISION.
- ALL CESSPIT LEADS ARE TO BE CLASS 2 UNLESS OTHERWISE INDICATED
- PIPE GRADES ON THE LONG SECTIONS ARE CALCULATED FROM MANHOLE CENTRE TO MANHOLE CENTRE. THIS MAY RESULT IN CREEP (ON STEEP SIDES PARTICULARLY) AND THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT LASER LEVELS ARE SET TO COMPENSATE

NOTES: 430 - RAINGARDEN

- REFER TO 400 SERIES DRAWINGS FOR
- FOR PLANTING DETAILS, REFER LANDSCAPE ARCHITECTS DRAWINGS
- DESIGNED IN ACCORDANCE WITH AUCKLAND COUNCIL GDO1 SECTION C 3.0 -BIORETENTION

NOTES 450 - 10% CATCH

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING INFRASTRUCTURE AND SERVICING REPORT

NOTES: 460 - 1% OLFP

PROJECT

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING INFRASTRUCTURE AND SERVICING REPORT
- REFER TO DRAWING 400 FOR STORMWATER RETICULATION NETWORK.

NOTES: 500 - WASTEWATER

- 1. ALL WORKS AND MATERIALS ARE TO COMPLY WITH WATERCARE SERVICES LIMITED'S CODE OF PRACTICE FOR LAND DEVELOPMENTS AND SUBDIVISION
- ALL WORKS ON EXISTING WASTEWATER LINES TO BE CARRIED OUT BY AN APPROVED LICENSED CONTRACTOR AT THE DEVELOPER'S
- ALL WASTEWATER LINES ARE TO BE 150 mm U-PVC PIPE UNLESS SHOWN OTHERWISE
- ALL MANHOLES ARE TO BE 1050 mm DIAMETER WITH HEAVY DUTY LIDS AND COVERS UNLESS
- BEDDING FOR WASTEWATER PIPES IS TO COMPLY WITH WATERCARE SERVICES LIMITED'S CODE OF PRACTICE FOR LAND DEVELOPMENT AND SUBDIVISION.
- 6. ALL PIPE CROSSINGS UNDER CARRIAGEWAYS/TRAFFIC AREAS TO BE HARDFILL BACKFILLED 1.0 m BEYOND THE **EXTENT OF THE CARRIAGEWAY**
- ALL PIPE CROSSOVERS ARE TO BE HARDFILLED BACKFILLED 1.0 m EITHER SIDE OF THE CROSSOVER
- 8. WHERE CROSSOVERS BETWEEN PIPELINES IS LESS THAN 150 mm, THE GAP IS TO BE POLYSTYRENE PACKED, IN ADDITION TO
- ALL CONNECTIONS ARE TO BE 100 mm DIAMETER U-PVC UNLESS SHOWN OTHERWISE, AND DIMENSIONED FROM THE DOWNSTREAM MANHOLE, ALL LOT CONNECTIONS TO TERMINATE BELOW FINISHED GROUND LEVEL AND STAKED. CONNECTIONS ARE TO BE ASBUILTED PRIOR TO TRENCH BACKFILLING.
- 10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND ACCURATELY CONFIRM INVERT AND LID LEVELS OF EXISTING STORMWATER AND WASTEWATER MANHOLES PRIOR TO COMMENCING CONSTRUCTION. WHERE LEVELS DIFFER TO THOSE SHOWN THE CONTRACTOR SHALL ADVISE THE ENGINEER ACCORDINGLY
- 11. THESE DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING SERVICES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY LOCATE AND PROTECT ALL EXISTING SERVICES DURING THE CONSTRUCTION PERIOD.
- 12. ALL LATERAL CONNECTIONS TO 1050Ø MANHOLES SHALL NOT BE DROPPER TYPES, AND SHALL CONNECT TO MANHOLE AT LOWEST POSSIBLE LEVEL

NOTES: 510 - WW LONGS

TITLE:

PIPE GRADES ON THE LONG SECTIONS ARE CALCULATED FROM MANHOLE CENTRE TO MANHOLE CENTRE. THIS MAY RESULT IN CREEP (ON STEEP SIDES PARTICULARLY) AND THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT LASER LEVELS ARE SET TO COMPENSATE

NOTES: 600 - WATER

- ALL WATERMAINS SETOUT DATA SHOWN ON 600 SERIES DRAWINGS IS TO BE PROVIDED FLECTRONICALLY
- BEDDING AND SURROUND FOR ALL PIPES TO BE IN ACCORDANCE WITH WATERCARE CODE OF PRACTICE FOR LAND DEVELOPMENT AND
- CONNECTIONS TO EXISTING COUNCIL WATERMAINS ARE TO BE MADE ONLY AFTER TESTING, STERILISATION AND ACCEPTANCE BY WATERCARE AND AUCKLAND COUNCIL
- ALL WORKS AND MATERIALS TO COMPLY WITH WATERCARE CODE OF PRACTICE: I) 50mmØ (63 OD), MDPE 80B AS/NZS 4130/2003
- PN12.5 SDR11 COLOURED BLUE
- II) 100-200mmØ PVC-u AS/NZS 1477:2006 SERIES 1 PN12 COLOURED BLUE. III) DUCTILE IRON CLASS K9 OR PN35 AS/NZS2280:2004 CONCRETE LINED. IV) PE PIPES WHERE SHOWN SHALL BE PN12.5
- ALL TRENCHES UNDER CARRIAGEWAYS TO BE BACKFILLED WITH HARDFILL.
- THESE DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING SERVICES. IT IS THE RESPONSIBILTY OF THE CONTRACTOR TO ACCURATELY LOCATE AND PROTECT ALL EXISTING SERVICES DURING THE CONSTRUCTION PERIOD.
- THE CONTRACTOR IS TO ACCURATELY FIX BY SURVEY ALL CHANGES IN DEPTH AND DIRECTION OF THE PROPOSED WATERMAIN.
- ALL TEES. BENDS AND FITTINGS SHALL BE FLANGED DUCTILE IRON MIN PN16 AND PROVIDED WITH ANCHOR BLOCKS (SEE WSL DWG 15-17).
- ALL ROAD CROSSINGS SHALL BE PN12.5 PE100 PIPES WITH BUTT WELDED JOINTS (SEE WSL DWG WS 6)
- ALL PEAT VALVES AND SLUICE VALVES TO BE RESILIENT SEATED.

NOTES: 800 - UTILITIES

- POWER, TELECOM AND GAS LAYOUT ARE SUBJECT TO FINAL LAYOUT ASBUILT TO BE PROVIDED BY UTILITY PROVIDERS.
- TRANSFORMERS, SWITCH GEAR, TELECOM CABINETS TO BE LOCATED WITHIN LOTS.
- THESE DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING SERVICES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY LOCATE AND PROTECT ALL EXISTING SERVICES DURING THE CONSTRUCTION

MCKENZIE & CO.

VINEWAY LIMITED

DELMORE STAGE 1 53A, 53B & 55 RUSSELL RD **OREWA**

NOTES **OVERALL PLAN**

FOR RESOURCE CONSENT

SCALE: DO NOT SCALE DRAWING NO

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